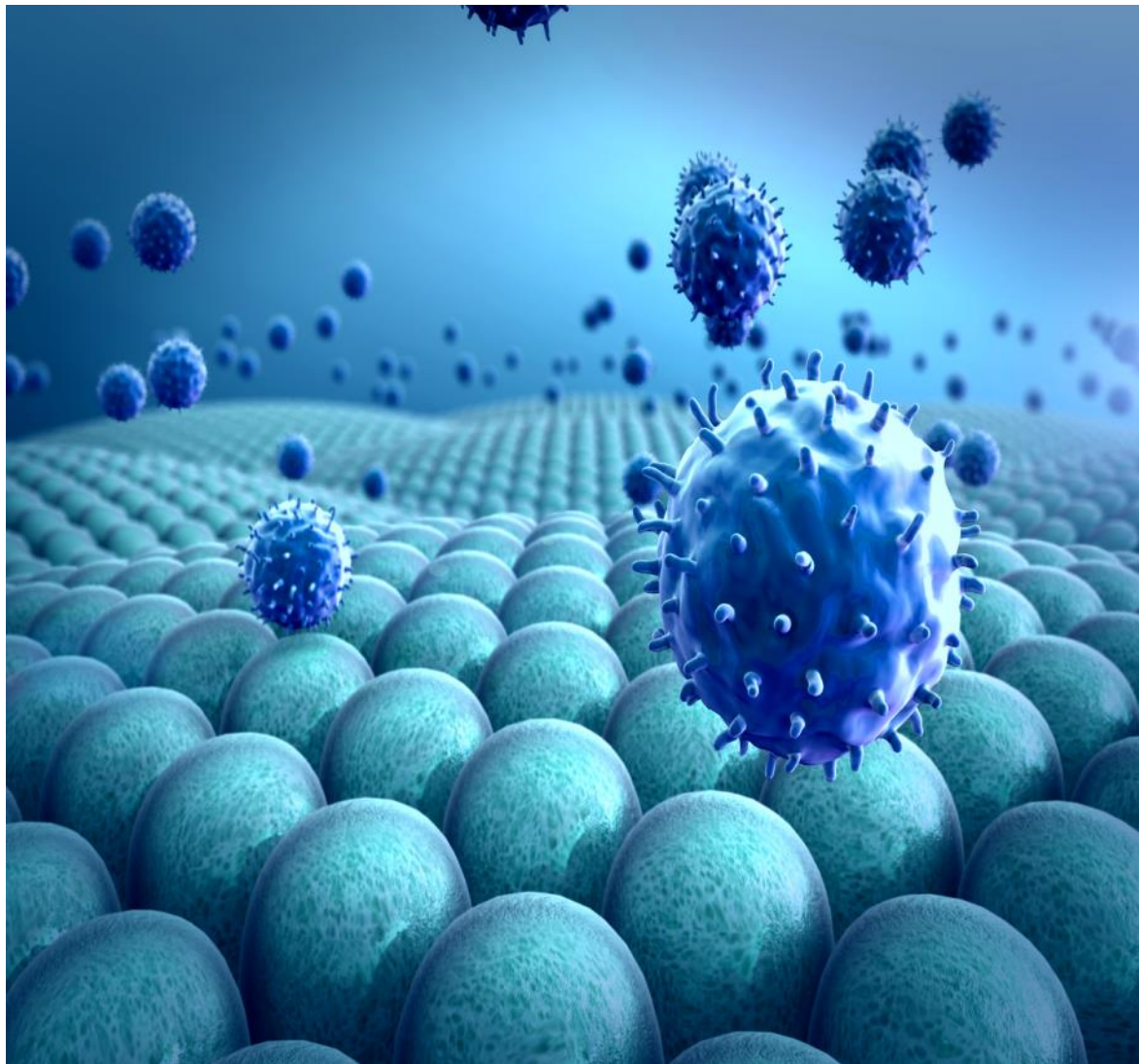




Exceptional Products for Life Science Research

2016 Product Catalog





CovaChem

CovaChem is a chemical manufacturing company serving research scientists in the life sciences. We are dedicated to producing the highest quality reagents in the marketplace for use in mass spectrometry, proteomics, protein sciences, drug testing and drug development. We offer a wide range of products in both small scale and bulk quantities. For sizes larger than our catalog offering, please contact us for a custom quotation. CovaChem is proud to serve customers around the world, meeting their chemical, biotech, and analytical product needs. The customer is always our top priority, and this is why we offer an UNCONDITIONAL GUARANTEE for all of our products!

CovaChem's mission is to deliver top quality products for use in research, lead the industry in value, and develop reagents of great utility for our customers. Our technical representatives are ready to assist you in method and assay development. Our driven team of scientists with decades of experience aim to provide our customers with the best quality product delivered promptly. Customers can expect more, while extending their research dollar further.

CovaChem's product portfolio includes products for protein research and proteomics, UltraHigh Purity LCMS mobile phases, GC derivatization reagents, other chemicals used in life science research, and custom organic synthesis services. CovaChem's product offering is continually being updated. If you are looking for a particular product not listed in this catalog, please call or email our customer service group for availability and pricing. Please let us know if we can do more to assist you with your research needs.



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Table of Contents

Protein Crosslinkers	
Zero Length Crosslinkers	2-3
Homobifunctional Crosslinkers	3-5
Heterobifunctional Crosslinkers	6-9
Protein Modifiers	
Biotinylation	10-11
Other Protein Modifiers	12-13
Molecular Biology Solvents	13
MALDI Matrices	14
Mobile Phases	
LCMS Additives	15
LCMS Grade Organic Buffers	15
HPLC Grade Solvents	16
LCMS Grade Solvents	17
Derivatization Grade Solvents	17
Molecular Biology Grade Buffers	18-19
GC Derivatization Reagents	
Silylation	20-21
Acylation	21-22
Alkylation	23
Purified Enzymes	23
Chemical Reagents	24-25



Protein Crosslinkers—Zero Length

CovaChem manufactures protein crosslinkers that are among the highest quality in the industry. There are three main classes of protein crosslinkers, zero length crosslinkers, homobifunctional crosslinkers and heterobifunctional crosslinkers. This product line is added to regularly, and CovaChem is pleased to offer custom synthesis and design of compounds at reasonable prices. Please contact us for additional products, custom manufacturing and bulk quotations.

ZERO LENGTH CROSSLINKERS

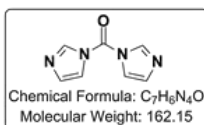
Zero length protein crosslinkers form molecular cross links between amines and carboxylates or phosphates and amines, which result in a stable amide or phosphoramidate linkage respectively. These reagents induce crosslinks of the shortest possible length, with no atoms inserted between the two functional groups being connected.

CDI | DCC | EDC-HCL | NHS | Sulfo-NHS



N,N'-Carbonyldiimidazole (CDI)

N,N'-Carbonyldiimidazole is used to activate hydroxyl or carboxylate groups, for conjugation with nucleophiles, such as amines or hydroxyl groups.



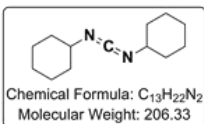
Spacer Lengths: 0 Å

CAS Number: 530-62-1

Size	Part No.	Price
5 grams	13501-5	\$23.00
25 grams	13501-25	\$79.00

N,N'-Dicyclohexyl carbodiimide (DCC)

N,N'-Dicyclohexyl carbodiimide (DCC) is a widely used zero length coupling reagent in synthetic applications. This reagent is commonly used to create peptide bonds, NHS esters and other ester compounds. DCC is only used in organic solvent due to its non-polar cyclohexyl rings.



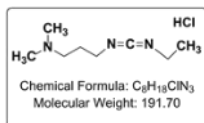
Spacer Lengths: 0 Å

CAS Number: 538-75-0

Size	Part No.	Price
5 grams	13502-5	\$19.00
25 grams	13502-25	\$29.00

N-Ethyl-N'-(3-dimethylaminopropyl)carbodiimide HCl (EDC-HCL)

N-Ethyl-N'-(3-dimethylaminopropyl)carbodiimide hydrochloride (EDC-HCl) is a zero length protein crosslinker. Also known as EDAC-HCl, this reagent is often used with either Sulfo-NHS (CovaChem [13505](#)) or NHS (CovaChem [13504](#)). EDC functions by activating the carboxyl region of the protein or other molecule, and coupling it to an amine or other nucleophilic functional group. MES DryBlend (CovaChem [19214](#)) and PBS DryBlend (CovaChem [19213](#)) premade buffer packs are optimally suited for EDC coupling reactions.



Spacer Lengths: 0 Å

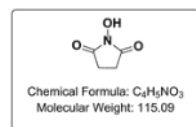
CAS Number: 25952-53-8

Size	Part No.	Price
3 x 10 mg	13503-3x10	\$19.00
100 mg	13503-100	\$25.00
5 grams	13503-5	\$39.00
25 grams	13503-25	\$49.00
100 grams	13503-100B	\$149.00

Alternative Names: EDAC-HCL; EDC; 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide HCl

N-Hydroxysuccinimide | (NHS)

N-Hydroxysuccinimide (NHS) is used in conjugation reactions with EDC (CovaChem [13503](#)), DCC (CovaChem [13502](#)) and other coupling reagents to stabilize the active intermediate or form a stable ester for later use.



Spacer Lengths: 0 Å

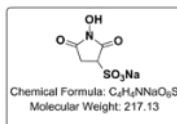
CAS Number: 6066-82-6

Size	Part No.	Price
25 grams	13504-25	\$30.00



N-Hydroxysulfosuccinimide (Sulfo-NHS)

N-Hydroxysulfosuccinimide (Sulfo-NHS) is commonly used as a catalyst in reactions involving EDC (CovaChem 13503). Sulfo-NHS serves the role of a catalyst in EDC facilitated couplings, as it stabilizes the active intermediate and improves overall coupling efficiency and yield.



Spacer Lengths: 0 Å
CAS Number: 106627-54-7

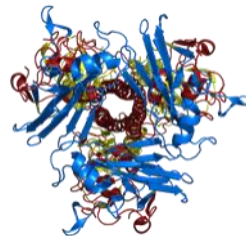
Size	Part No.	Price
500 mg	13505-500	\$79.00
1 gram	13505-1	\$159.00
5 grams	13505-5	\$697.00

HOMOBIFUNCTIONAL CROSSLINKERS

Homobifunctional crosslinkers contain two reactive functional groups that have the same molecular structure and reaction specificity. Some of the more common homobifunctional groups in NHS and Sulfo-NHS esters, as well as bis-maleimide compounds.

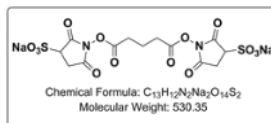


BS₂G | BMB | BS₃ | DSC | DSG | DSP | DSS | DST | DTSSP | EGS | 1,3-PDM | 1,4-PDM | Sulfo-EGS



Bis-(Sulfosuccinimidyl) glutarate (BS₂G Crosslinker)

Bis-(Sulfosuccinimidyl) glutarate (BS₂G) is a water soluble protein crosslinker. BS₂G is the water soluble analogue to DSG (CovaChem 13301). The BS₂G polar sulfonate groups prevent it from permeating the cell membrane, making it well suited for cell surface crosslinking applications.



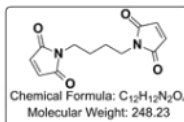
Spacer Lengths: 7.7 Å
Reactive Groups: Sulfo-NHS Esters
Reactive Toward: Amino groups (-NH₂)

Size	Part No.	Price
100 mg	13302-100	\$89.00
1 gram	13302-1	\$799.00

Alternative Names: Sulfo-DSG; Sulfosuccinimidyl glutarate; Di-(N-sulfosuccinimidyl) glutarate sodium salt; BS₂G-d0

1,4-Bis(Maleimido) butane (BMB Crosslinker)

Bis-Maleimidobutane (BMB) is a moderate length thiol to thiol (-SH) crosslinking agent.



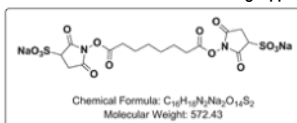
Spacer Lengths: 10.9 Å
Reactive Groups: Maleimide
Reactive Toward: Sulfhydryl Groups (-SH)
CAS Number: 28537-70-4

Size	Part No.	Price
100 mg	13311-100	\$79.00
1 gram	13311-1	\$399.00

Alternative Names: N,N'-Tetramethylenebismaleimide; 1,1'-(1,4-Butanediy)bis-1H-pyrrole-2,5-dione; Tetramethylbismaleimide

Bis-(Sulfosuccinimidyl) suberate (BS₃ Crosslinker)

Bis-(Sulfosuccinimidyl) suberate (BS₃) is a non-cleavable, water soluble, homobifunctional protein crosslinker. BS₃ is the water soluble analogue to DSS (CovaChem 13305). This compound is well suited for cell surface crosslinking applications.



Spacer Lengths: 11.4 Å
Reactive Groups: Sulfo-NHS Esters
Reactive Toward: Amino groups (-NH₂)
CAS Number: 82436-77-9

Size	Part No.	Price
10 x 5 mg	13506-10x5	\$89.00
100 mg	13506-100	\$77.00
1 gram	13506-1	\$699.00

Alternative Names: Sulfo-DSS; Di-(N-sulfosuccinimidyl) suberate sodium salt; Suberic acid bis(3-sulfo-N-hydroxysuccinimide ester) sodium salt; BS₃-d0



Protein Crosslinkers—Homobifunctional

N,N-Disuccinimidyl carbonate (DSC Crosslinker)

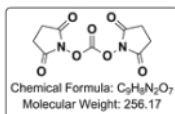
N,N-Disuccinimidyl carbonate (DSC) is a homobifunctional crosslinker with a short spacer length. Both ends of the molecule can be used to react specifically with amino groups.

Spacer Lengths: 1.5 Å

Reactive Groups: NHS Esters

Reactive Toward: Amino groups ($-NH_2$)

CAS Number: 74124-79-1



Size	Part No.	Price
100 mg	13310-100	\$29.00
5 grams	13310-5	\$79.00

Alternative Names: N-Succinimidyl carbonate; Di(N-succinimidyl) carbonate; DSC

Di(N-succinimidyl) glutarate (DSG Crosslinker)

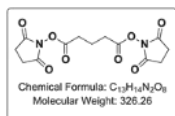
DSG is a popular and widely used protein crosslinker that contains a moderate to short spacer arm. DSG is cell membrane permeable, and contains two active NHS esters that are amine reactive. This crosslinker is also available in the water soluble form as BS2G (CovaChem 13302).

Spacer Lengths: 7.7 Å

Reactive Groups: NHS Esters

Reactive Toward: Amino Groups ($-NH_2$)

CAS Number: 79642-50-5



Size	Part No.	Price
100 mg	13301-100	\$32.00
5x100 mg	13301-5x100	\$140.00
1 grams	13301-1	\$259.00

Alternative Names: Disuccinimidyl glutarate; Succinimidyl glutarate; DSG-d0

Dithiobis(succinimidyl propionate) (DSP Crosslinker)

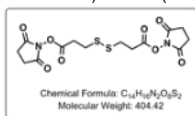
DSP is an amine reactive homobifunctional protein crosslinker. The disulfide (S-S) moiety in its spacer arm allows for cleavage of the protein crosslinks with a reducing agent, such as TCEP (CovaChem 11303) or DTT (CovaChem 11302).

Spacer Lengths: 12.0 Å

Reactive Groups: NHS Esters

Reactive Toward: Amino groups ($-NH_2$)

CAS Number: 57757-57-0



Size	Part No.	Price
100 mg	13303-100	\$39.00
1 gram	13303-1	\$119.00

Alternative Names: DTSP; Lomant's Reagent; Dithiobis(succinimidyl propionate); DSP-d0

N,N-Disuccinimidyl suberate (DSS Crosslinker)

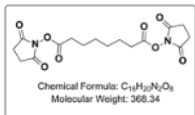
DSS is a widely used amine reactive homobifunctional crosslinker with a longer spacer arm than DSG (CovaChem 13301). This crosslinker is membrane permeable and non-cleavable. This crosslinker is also available in the water soluble form, BS3 (CovaChem 13306).

Spacer Lengths: 11.4 Å

Reactive Groups: NHS Esters

Reactive Toward: Amino groups ($-NH_2$)

CAS Number: 68528-80-3



Size	Part No.	Price
100 mg	13305-100	\$32.00
1 gram	13305-1	\$79.00

Alternative Names: Disuccinimidyl suberate; Succinimidyl suberate; DSS-d0

Disuccinimidyl-L-tartrate (DST Crosslinker)

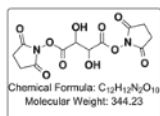
DST is a water soluble protein crosslinker that is cleavable by periodate oxidation with Sodium meta-periodate (CovaChem 11310). This reagent is particularly attractive option when a cleavable crosslinker is desired that will not disrupt the disulfide (S-S) network.

Spacer Lengths: 6.4 Å

Reactive Groups: NHS Esters

Reactive Toward: Amino Groups ($-NH_2$)

CAS Number: 62069-75-4



Size	Part No.	Price
100 mg	13307-100	\$119.00
1 gram	13307-1	\$249.00

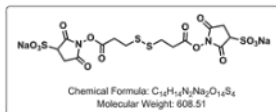
Alternative Names: Disuccinimidyl tartrate; Succinimidyl tartrate; DST



3,3'-Dithiobis(sulfosuccinimidyl propionate) (DTSSP Crosslinker)

DTSSP is a water soluble, amine reactive homobifunctional protein crosslinker. This compound is well suited for cell surface protein crosslinking, as it is not cell membrane permeable. The disulfide bond of DTSSP can be cleaved with a reducing agent, such as TCEP (CovaChem 11303).

Spacer Lengths: 12.0 Å
Reactive Groups: Sulfo-NHS Esters
Reactive Toward: Amino groups (-NH₂)
CAS Number: 81069-02-5



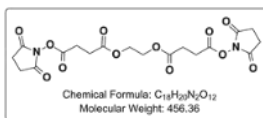
Size	Part No.	Price
100 mg	13304-100	\$158.00
1 gram	13304-1	\$959.00

Alternative Names: DTSSP; Dithiobis (sulfosuccinimidyl propionate)

Ethylene glycol bis(succinimidylsuccinate) (EGS Crosslinker)

EGS is an amine reactive homobifunctional crosslinker with a moderately long spacer arm. EGS is also available in the water soluble form as Sulfo-EGS (CovaChem 13309). The crosslinks formed by EGS are cleavable by treatment with hydroxylamine (CovaChem 11304).

Spacer Lengths: 16.1 Å
Reactive Groups: NHS Esters
Reactive Toward: Amino Groups (-NH₂)
CAS Number: 70539-42-3



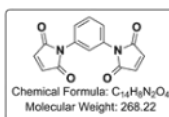
Size	Part No.	Price
100 mg	13308-100	\$39.00
1 gram	13308-1	\$110.00

Alternative Names: EGS; D-(N-succinimidyl) ethylene glycol disuccinate; Ethylene glycol disuccinate di(N-succinimidyl) ester

1,3-Phenylene dimaleimide (1,3-PDM Crosslinker)

1,3-Phenylene dimaleimide is a thiol reactive homobifunctional protein crosslinker. This crosslinking reagent is particularly advantageous when it is desirable to only modify cysteine residues, which are ordinarily less abundant than lysine residues where amino groups typically reside.

Spacer Lengths: 9.3 Å
Reactive Groups: Maleimides
Reactive Toward: Sulfhydryl groups (-SH)
CAS Number: 3006-93-7



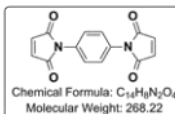
Size	Part No.	Price
100 mg	13312-100	\$109.00
1 gram	13312-1	\$209.00

Alternative Names: m-Phenylene dimaleimide; m-PDM; 1,1'-(1,3-phenylene)bis(1H-pyrrole-2,5-dione)

1,4-Phenylene dimaleimide (1,4-PDM Crosslinker)

1,4-Phenylene dimaleimide is a thiol reactive homobifunctional protein crosslinker. This crosslinking reagent is particularly advantageous when it is desirable to only modify cysteine residues, which are ordinarily less abundant than lysine residues where amino groups typically reside.

Spacer Lengths: 10.2 Å
Reactive Groups: Maleimide
Reactive Toward: Sulfhydryl Groups (-SH)
CAS Number: 3278-31-7



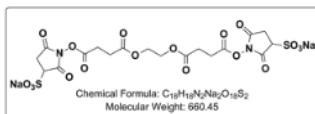
Size	Part No.	Price
100 mg	13311-100	\$109.00
1 gram	13311-1	\$229.00

Alternative Names: p-Phenylenedimaleimide; 1,4-Phenylene dimaleimide; p-PDM; 1,1'-(1,4-phenylene)bis(1H-pyrrole-2,5-dione)

Ethylene glycol bis(sulfosuccinimidylsuccinate) (Sulfo-EGS Crosslinker)

Sulfo-EGS is a water soluble, amine reactive homobifunctional protein crosslinker. The crosslinks formed by Sulfo-EGS can be easily cleaved by reacting the crosslinked sample with hydroxylamine (CovaChem 11304) at pH 8.5.

Spacer Lengths: 16.1 Å
Reactive Groups: Sulfo-NHS Esters
Reactive Toward: Amino groups (-NH₂)



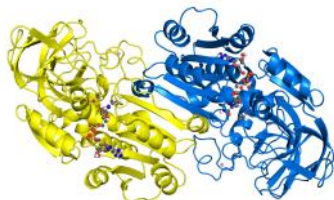
Size	Part No.	Price
100 mg	13309-100	\$109.00
1 gram	13309-1	\$799.00

Alternative Names: Sulfo-EGS; D-(N-sulfosuccinimidyl) ethylene glycol disuccinate; Ethylene glycol disuccinate di(N-sulfosuccinimidyl) ester



Protein Crosslinkers—Heterobifunctional

HETEROBIFUNCTIONAL CROSSLINKERS



Heterobifunctional crosslinkers contain two reactive functional groups with different molecular structures and reaction specificity. Heterobifunctional crosslinkers often contain an amine reactive functional group to react with lysine residues and another functional group for reaction with some other residue, such as cysteines.



BMPA | BMPS | EMCS | GMBS | LC-SPDP | MBS | PDPH | SBA | SIA | SMCC | SMPB | SPDP | Sulfo-LC-SPDP | Sulfo-MBS | Sulfo-SANPAH | Sulfo-SMCC

BMPA Crosslinker

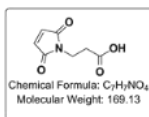
BMPA is heterobifunctional crosslinker with a carboxylic acid on one end and a maleimide on the other. This compound has a relatively short spacer arm, and is useful for converting sulfhydryls (-SH) into carboxylic acids (-COOH).

Spacer Lengths: 5.9 Å

Reactive Groups: Carboxylic acid & Maleimide

Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

CAS Number: 7423-55-4



Size	Part No.	Price
100 mg	13418-100	\$39.00
1 gram	13418-1	\$258.00

Alternative Names: 3-Maleimidopropionic acid; N-(3-Maleimidopropionic acid); N-Maleoyl-β-alanine

BMPS Crosslinker

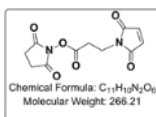
BMPS is a heterobifunctional protein crosslinker which is routinely used to link sulfhydryl groups to amines in both synthetic and protein applications. Conjugates formed with BMPS are usually regarded as having a low likelihood of triggering an immune response in cellular applications.

Spacer Lengths: 5.9 Å

Reactive Groups: NHS Ester & Maleimide

Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

CAS Number: 55750-62-4



Size	Part No.	Price
100 mg	13401-100	\$89.00
1 gram	13401-1	\$797.00

Alternative Names: 3-Maleimidopropionic acid NHS ester; N-(3-Maleimidopropionyloxy)succinimide; N-Maleoyl-β-alanine N'-hydroxysuccinimide

EMCS Crosslinker

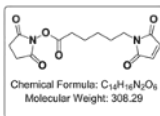
N-Succinimidyl 6-maleimidocaproate (EMCS) is a heterobifunctional protein crosslinker. EMCS is commonly used to form antigen-carrier protein conjugates and in protein immobilization applications.

Spacer Lengths: 9.4 Å

Reactive Groups: NHS Ester & Maleimide

Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

CAS Number: 55750-63-5



Size	Part No.	Price
100 mg	13402-100	\$162.00
1 gram	13402-1	\$1399.00

Alternative Names: 6-Maleimidocaproic acid NHS ester; N-(ε-Maleimidocaproyloxy)succinimide

GMBS Crosslinker

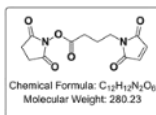
GMBS is a heterobifunctional crosslinker with a maleimide group and a NHS ester. GMBS is an excellent crosslinker for forming antigen-carrier protein conjugates.

Spacer Lengths: 7.3 Å

Reactive Groups: NHS Ester & Maleimide

Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

CAS Number: 80307-12-6



Size	Part No.	Price
100 mg	13403-100	\$142.00
1 gram	13403-1	\$1259.00

Alternative Names: 4-Maleimidobutyric acid NHS ester; N-[8-Maleimidobutyroxy]succinimide ester; N-Succinimidyl 4-maleimidobutyrate



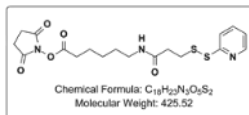
LC-SPDP Crosslinker

Succinimidyl 6-[3-(2-pyridyldithio)propionamido] hexanoate (LC-SPDP) is a heterobifunctional protein crosslinker that is reactive towards thiols (-SH) and primary amines (-NH₂). Crosslinks formed by LC-SPDP are cleavable by reduction with TCEP (CovaChem 11303) or DTT (CovaChem 11302).

Spacer Lengths: 15.7 Å

Reactive Groups: Pyridyl disulfide & NHS

Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)



Size	Part No.	Price
100 mg	13404-100	\$197.00
1 gram	13404-1	\$1,799.00

Alternative Names: LCSPDP; Succinimidyl 6-[3-(2-pyridyldithio)propionamido] hexanoate

MBS Crosslinker

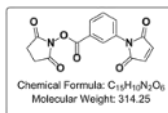
m-Maleimidobenzoyl N-hydroxysuccinimide (MBS) is a non-cleavable heterobifunctional protein crosslinker with a rigid benzene ring in its spacer arm. MBS is also available in the water soluble form as Sulfo-MBS (CovaChem 13413).

CAS#: 58626-38-3

Spacer Lengths: 9.9 Å

Reactive Groups: NHS & Maleimide Reactive

Toward: Amino (-NH₂) & Sulfhydryl (-SH)



Size	Part No.	Price
100 mg	13405-100	\$59.00
1 gram	13405-1	\$405.00

Alternative Names: m-Maleimidobenzoyl N-hydroxysuccinimide; m-Maleimidobenzoyl NHS ester; 3-Maleimidobenzoic acid N-hydroxysuccinimide

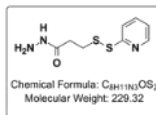
PDPH Crosslinker

PDPH is a heterobifunctional protein crosslinker that is reactive towards oxidized carbohydrates and thiol residues. Crosslinks form by this compound are cleavable by reduction with TCEP (CovaChem 11303) or DTT (CovaChem 11302).

Spacer Lengths: 9.2 Å

Reactive Groups: Pyridyl disulfide & Hydrazide

Reactive Toward: Sulfhydryls (-SH) and Carbohydrates



Size	Part No.	Price
100 mg	13406-100	\$119.00
1 gram	13406-1	\$997.00

Alternative Names: 3-(2-Pyridyldithio)propionyl hydrazide; SPDP Hydrazide; PDPH

SBA Crosslinker

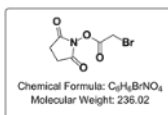
Succinimidylbromoacetate (SBA) is a non-cleavable, short arm, heterobifunctional protein crosslinker. This crosslinking reagent is useful for conjugating two proteins together through different amino acid residues.

CAS#: 42014-51-7

Spacer Lengths: 1.5 Å

Reactive Groups: NHS & Bromoacetate

Reactive Toward: (-NH₂) & Sulfhydryl (-SH)



Size	Part No.	Price
100 mg	13407-100	\$35.00
1 gram	13407-1	\$299.00

Alternative Names: SBA NHS; Succinimidylbromoacetate; NHS Bromoacetate; Bromoacetic acid NHS ester

SIA Crosslinker

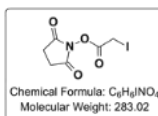
Succinimidyliodoacetate (SIA) is a non-cleavable, heterobifunctional protein crosslinker with a short spacer arm. This crosslinker is useful for conjugating two proteins together through different amino acid residues.

CAS#: 39028-27-8

Spacer Lengths: 1.5 Å

Reactive Groups: NHS & Iodoacetate

Reactive Toward: (-NH₂) & Sulfhydryl (-SH)



Size	Part No.	Price
100 mg	13408-100	\$49.00
1 gram	13408-1	\$349.00

Alternative Names: Succinimidyliodoacetate; NHS Iodoacetate; Iodoacetic acid NHS ester; SIA NHS

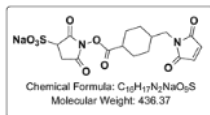


Protein Crosslinkers—Heterobifunctional

SMCC Crosslinker

Sulfo-SMCC is a water soluble, membrane impermeable, heterobifunctional protein crosslinking reagent with a moderate length spacer arm. This crosslinker is useful for preparing maleimide activated enzymes and carrier proteins.

Size	Part No.	Price
100 mg	13409-100	\$88.00
1 gram	13409-1	\$705.00



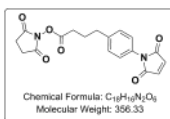
Spacer Lengths: 8.3 Å
Reactive Groups: Sulfo-NHS Ester & Maleimide
Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)
CAS Number: 64987-85-5

Alternative Names: SSMCC; 4-(Maleimidomethyl)cyclohexane-1-carboxylic acid 3-sulfo-N-hydroxysuccinimide ester sodium salt

SMPB Crosslinker

SMPB is a heterobifunctional protein crosslinking reagent equipped with an maleimide and NHS ester. This compound is similar to MBS (CovaChem) with a longer spacer arm.

Size	Part No.	Price
100 mg	13419-100	\$149.00
1 gram	13419-1	\$1,410.00



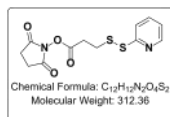
Spacer Lengths: 11.6 Å
Reactive Groups: NHS Ester & Maleimide
Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)
CAS Number: 79886-55-8

Alternative Names: Succinimidyl-4-[p-maleimidophenyl]butyrate

SPDP Crosslinker

SPDP is a widely used heterobifunctional protein crosslinking reagent. SPDP is cleavable by reduction with TCEP (CovaChem 11303) or DTT (CovaChem 11302). This compound is also available in the long chain form that is water soluble (CovaChem 13412).

Size	Part No.	Price
100 mg	13411-100	\$109.00
1 gram	13411-1	\$998.00



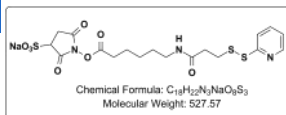
Spacer Lengths: 6.8 Å
Reactive Groups: NHS Ester & Pyridyl disulfide
Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)
CAS Number: 68181-17-9

Alternative Names: N-Succinimidyl 3-[2-pyridyldithio] propionate

Sulfo-LC-SPDP Crosslinker

Sulfo-LC-SPDP is a long chain, water soluble, heterobifunctional protein crosslinker. Crosslinks formed by Sulfo-LC-SPDP can be cleaved by reduction with reagents, such as TCEP-HCl (CovaChem 11303) and DTT (CovaChem 11302).

Size	Part No.	Price
100 mg	13412-100	\$298.00
1 gram	13412-1	\$2,298.00



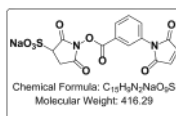
Spacer Lengths: 15.7 Å
Reactive Groups: Sulfo-NHS Ester & Pyridyl disulfide
Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

Alternative Names: Sulfosuccinimidyl 6-[3'-(2-pyridyldithiopropioncamido) hexanoate]

Sulfo-MBS Crosslinker

Sulfo-MBS is a non-cleavable, heterobifunctional protein crosslinker. This compound may be dissolved in water directly, or a more concentrated stock solution can be prepared in a premium quality, low water DMSO (CovaChem 18252).

Size	Part No.	Price
100 mg	13413-100	\$129.00
1 gram	13413-1	\$1,098.00



Spacer Lengths: 9.9 Å
Reactive Groups: Sulfo-NHS Ester & Maleimide
Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

Alternative Names: m-Maleimidobenzoyl-N-hydroxysulfosuccinimide ester; 3-Maleimidobenzoylsulfosuccinimide ester sodium salt



Sulfo-SANPAH Crosslinker

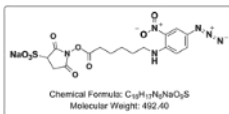
Sulfo-SANPAH is a water soluble, heterobifunctional protein crosslinker. This compound has an amine reactive Sulfo-NHS moiety on one end, a relatively long spacer arm, and a non-selective, photoreactive Nitrophenylazide on the other end.

Spacer Lengths: 18.2 Å

Reactive Groups: Sulfo-NHS Ester & Nitrophenylazide

Reactive Toward: Amino (-NH₂) & Nonselective

Alternative Names: Sulfosuccinimidyl 6-[4'-azido-2'-nitrophenylamino]hexanoate



Size	Part No.	Price
5x5 mg	13414-5x5	\$109.00
100 mg	13414-100	\$149.00
1 gram	13414-1	\$1,392.00

Sulfo-SMCC Crosslinker

Sulfo-SMCC is a water soluble heterobifunctional protein crosslinker. This compound is the water soluble version of SMCC (CovaChem13415). Sulfo-SMCC is ideally suited for preparing labeled enzymes and maleimide activated carrier proteins.

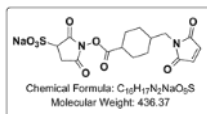
Spacer Lengths: 11.6 Å

Reactive Groups: Sulfo-NHS Ester & Maleimide

Reactive Toward: Amino (-NH₂) & Sulfhydryl (-SH)

CAS#: 92921-24-9

Alternative Names: Sulfosuccinimidyl 4-(N-maleimidomethyl)-cyclohexane-1-carboxylate



Size	Part No.	Price
100 mg	13415-100	\$128.00
1 gram	13415-1	\$1,088.00

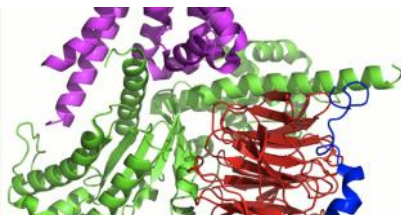
Heterobifunctional Crosslinker Selection Guide

Reactivity	Part Number	Product Name	Spacer Length (Å)	Cleavable (Y / N)
Amine - Sulfhydryl (Water Soluble)	13412	Sulfo-LC-SPDP	15.7	Yes
	13413	Sulfo-MBS	9.9	No
	13415	Sulfo-SMCC	11.6	No
Amine - Sulfhydryl (Water Insoluble)	13418	BMPA	5.9	No
	13401	BMPS	5.9	No
	13402	EMCS	9.4	No
	13403	GMBS	7.3	No
	13404	LC-SPDP	15.7	Yes
	13405	MBS	9.9	No
	13407	SBA	1.5	No
	13408	SIA	1.5	No
	13415	SMCC	8.3	No
	13419	SMPB	11.6	No
	13411	SPDP	6.8	Yes
Amine - Non-Selective (Water Soluble)	13414	Sulfo-SANPAH	18.2	No
Carbohydrate - Sulfhydryl (Water Insoluble)	13406	PDPH	9.2	Yes



Protein Modification—Biotinylation

BIOTINYLATION REAGENTS



Biotinylation reagents are useful tools for tagging antibodies, proteins and other molecules for the sake of later separating the tagged molecules from the unmodified ones. This group of protein modifying products are routinely utilized to create biotin labeled biomolecules. Once labeled, the biotin probe can be affinity bound by avidin or streptavidin for detection, separation or purification of the target molecule.

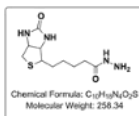


Biotin-Hz | d-Biotin | NHS-Biotin | NHS-LC-Biotin | NHS-SS-Biotin | Sulfo-NHS Biotin | Sulfo-NHS-LC-Biotin | Sulfo-NHS-SS-Biotin

Biotin Hydrazide

Biotin Hydrazide is a carbohydrate reactive biotinylation reagent. This reagent should be first dissolved in Molecular Biology Grade DMSO (CovaChem 18252) prior to addition to aqueous reaction at pH 4 to 6.

Size	Part No.	Price
100 mg	14201-100	\$38.00
1 gram	14201-1	\$299.00



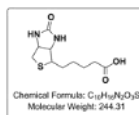
Spacer Lengths: 15.7 Å
Reactive Group: Hydrazide
Reactive Toward: Oxidized carbohydrates
CAS Number: 666640-86-6

Alternative Names: Biotin-Hz; Biotin-Hydrazide

D-Biotin

D-Biotin is also called free biotin. This compound can be used in organic synthesis applications, as a reference standard for biotin quantitation and as an elution buffer from Monomeric Avidin columns.

Size	Part No.	Price
100 mg	14208-100	\$27.00
1 gram	14208-1	\$49.00
5 grams	14208-5	\$139.00



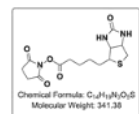
Spacer Lengths: 13.5 Å
CAS Number: 58-85-5

Alternative Names: (+)-Biotin; Vitamin H; Coenzyme R; Vitamin B7

NHS Biotin

NHS Biotin is a cell membrane permeable, amine reactive biotinylation reagent.

Size	Part No.	Price
100 mg	14202-100	\$35.00
1 gram	14202-1	\$290.00



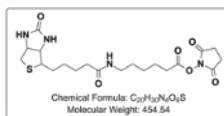
Spacer Lengths: 13.5 Å
Reactive Group: NHS Ester
Reactive Toward: Amino groups (-NH₂)
CAS Number: 35013-72-0

Alternative Names: Biotin-NHS; (+)-Biotin N-succinimidyl ester; BNHS; d-Biotin NHS ester; Biotinyl-N-hydroxy-succinimide; N-Hydroxysuccinimidebiotin

NHS-LC-Biotin

NHS-LC-Biotin is a cell membrane permeable, long chain, amine reactive biotinylation reagent. NHS-LC-Biotin should be dissolved in DMSO (CovaChem 18252) or DMF (CovaChem 18251) prior to addition to protein sample. A water soluble version of this product is available as Sulfo-NHS-LC-Biotin (CovaChem 14206).

Size	Part No.	Price
100 mg	14207-100	\$109.00
1 gram	14207-1	\$790.00



Spacer Lengths: 22.4 Å
Reactive Group: NHS Ester
Reactive Toward: Amino groups (-NH₂)
CAS Number: 72040-63-2

Alternative Names: Biotin-X-NHS; Succinimidyl 6-[biotinamido] Hexanoate; NHS LC Biotin



NHS-SS-Biotin

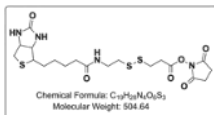
NHS-SS-Biotin is a cleavable, amine reactive biotinylation reagent. After biotinylation, the biotin tag can be removed with a reducing agent, such as TCEP (CovaChem 11303). This is useful for further modification or to obtain quantitative release the biotin avidin interaction.

Spacer Lengths: 24.3 Å

Reactive Group: NHS Ester

Reactive Toward: Amino groups (-NH₂)

CAS#: 142439-92-7



Size	Part No.	Price
100 mg	14204-100	\$128.00
1 gram	14204-1	\$790.00

Alternative Names: Succinimidyl 2-(biotinamido)-ethyl-1,3'-dithiopropionate; NHS-SS-Biotin

Sulfo-NHS Biotin

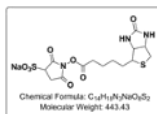
Sulfo-NHS Biotin (Sulfosuccinimidyl biotin) is a water soluble, cell membrane impermeable biotinylation reagent. This reagent is useful for biotinylation of cell surface proteins.

Spacer Lengths: 13.0 Å

Reactive Group: Sulfo-NHS Ester

Reactive Toward: Amino groups (-NH₂)

CAS#: 119616-38-5



Size	Part No.	Price
100 mg	14205-100	\$128.00
1 gram	14205-1	\$695.00

Alternative Names: Sulfosuccinimidyl biotin; Sulfo-NHS Biotin; SNHS Biotin

Sulfo-NHS-LC-Biotin

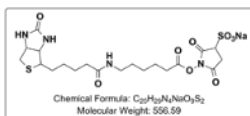
Sulfo-NHS-LC-Biotin is a long chain, water soluble biotinylation reagent.

Spacer Lengths: 22.4 Å

Reactive Group: Sulfo-NHS Ester

Reactive Toward: Amino groups (-NH₂)

CAS#: 127062-22-0



Size	Part No.	Price
100 mg	14206-100	\$138.00
1 gram	14206-1	\$818.00

Alternative Names: Sulfosuccinimidyl 6-[biotinamido] Hexanoate; Sulfo-NHS-X-Biotin

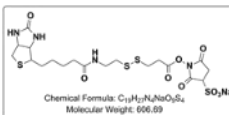
Sulfo-NHS-SS-Biotin

Sulfo-NHS-SS-Biotin is a cleavable, amine reactive biotinylation reagent. This compound contains a disulfide moiety, which allows for cleavage of the biotin tag with a reducing agent, such as TCEP (CovaChem 11303).

Spacer Lengths: 24.3 Å

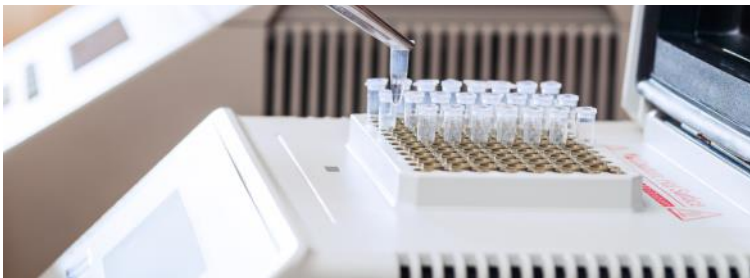
Reactive Group: Sulfo-NHS Ester

Reactive Toward: Amino groups (-NH₂)



Size	Part No.	Price
100 mg	14207-100	\$148.00
1 gram	14207-1	\$880.00

Alternative Names: Sulfosuccinimidyl-2-(biotinamido)-ethyl-1,3'-dithiopropionate; Sulfo-SS-Biotin





PROTEIN MODIFICATION



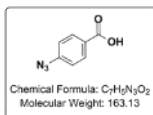
Protein modification is a process by which a functional group found in a protein molecule is chemically modified to either block the protein's functional group or convert it into another functionality. CovaChem supplies a wide range of these compounds to enable solutions to common protein research problems.

4-ABA | HPG | IAA | SATA | Sulfo-NHS Acetate | TCEP | Traut's Reagent

4-Azidobenzoic acid (4-ABA)

4-ABA is a photoreactive protein modification reagent that also contains a carboxylic acid residue, which can also be used as a handle.

Spacer Lengths: 7.7 Å
Reactive Groups: Phenyl azide
Reactive Toward: Nonselective
CAS#: 6427-66-3



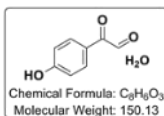
Size	Part No.	Price
100 mg	14108-1	\$39.00
1 gram	14108-5	\$97.00

Alternative Names: 4-Azidobenzoic acid; p-Azidobenzoic acid; 4-ABA HSAB acid

p-Hydroxyphenylglyoxal (HPG)

p-Hydroxyphenylglyoxal (HPG) is a protein modification reagent used to specifically modify arginine residues. This reagent gives a strong UV absorbance allowing for simple quantitation.

Reactive Groups: phenylglyoxal
Reactive Toward: Arginine (R) residues
CAS#: 24645-80-5



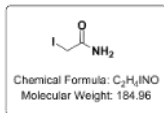
Size	Part No.	Price
100 mg	14101-100	\$47.00
1 gram	14101-1	\$299.00

Alternative Names: p-Hydroxyphenylglyoxal; HPG monohydrate

Iodoacetamide (IAA)

Iodoacetamide is a sulfhydryl blocking reagent. IAA reacts with the sulfhydryl (-SH) residue converting it to a primary amide. IAA is often used before the mass spectrometry analysis of protein samples reducing the negative ionization effects of the cysteine residue.

Reactive Groups: Iodoacetamide
Reactive Toward: Sulfhydryls (-SH)
CAS#: 144-48-9



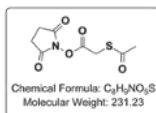
Size	Part No.	Price
24 x 1 mg	14107-24x1	\$49.00
5 x 10 mg	14107-5x10	\$59.00
100 mg	14107-100	\$29.00
1 gram	14107-1	\$189.00

Alternative Names: Iodoacetamide; 2-Iodoacetamide; IAA

N-Succinimidyl-S-acetyl thioacetate (SATA)

SATA is a protein modification reagent that serves as a protecting group for amino groups (-NH₂), such as those found on lysine. This protecting group can be converted to a free sulfhydryl group (-SH) by reacting the SATA modified protein with hydroxylamine (CovaChem 13304).

Spacer Lengths: 2.8 Å
Reactive Groups: NHS Ester
Reactive Toward: Amino groups (-NH₂)
CAS#: 76931-93-6



Size	Part No.	Price
100 mg	14102-100	\$67.00
1 gram	14102-1	\$497.00

Alternative Names: N-succinimidyl-S-acetyl-thioacetate; SATA Protein Modifier; SATA; N-Succinimidyl (acetylthio)acetate



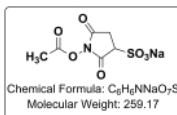
Sulfo-NHS Acetate

Sulfo-NHS Acetate is an effective amino blocking reagent. This compound is water soluble and membrane impermeable. Blocking is useful when it is desirable to prevent lysine residues interfering with a more desirable modification, or when only a limited amount of crosslinking is preferred.

Reactive Groups: Sulfo NHS

Reactive Toward: Amino groups (-NH₂)

CAS#: 152305-87-8



Size	Part No.	Price
100 mg	14103-100	\$72.00
1 gram	14103-1	\$599.00

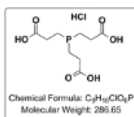
Alternative Names: Sulfo-N-hydroxysulfosuccinimide acetate

(TCEP-HCL)

TCEP is potent and effective reducing agent. TCEP is considered to have greater stability to pH variations and to be fast acting. TCEP is also easy to work with, as it is highly water soluble, and has less order than other reducing agents.

Reactive Toward: Disulfides

CAS#: 51805-45-9



Size	Part No.	Price
1 gram	11303-1	\$29.00
5 grams	11303-5	\$129.00
25 gram	11303-25	\$489.00

Alternative Names: Tris(2-carboxyethyl) phosphine; TCEP Hydrochloride; TCEP-HCl; TCEP

2-Iminothiolane (Traut's Reagent)

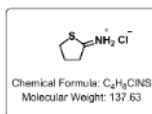
2-Iminothiolane is a useful reagent for converting amines (-NH₂) into free sulfhydryls (-SH). This reagent allows for a one step adding sulfhydryls. After reaction with lysine, the side chain will remain positively charged, through the presence of the iminium ion.

Spacer Length: 8.1 Å

Reactive Groups: Iminothiolane

Reactive Toward: Amino groups (-NH₂)

CAS #: 4781-83-3



Size	Part No.	Price
500 mg	14104-500	\$69.00
1 gram	14104-1	\$126.00

Alternative Names: 2-IT; Iminothiolane hydrochloride; Dihydro-2-(3H)-thiophenimine HCl; 2-Iminothiolane

MOLECULAR BIOLOGY SOLVENTS:



CovaChem's Molecular Biology Grade Solvents are designed for use in protein modification and protein crosslinking applications. These solvents are all refined to very high purity and contain low levels of water for optimal performance of crosslinking and protein modification experiments.

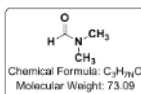
Dimethylformamide (DMF) | Dimethylsulfoxide (DMSO)

Molecular Biology Grade Dimethylformamide (DMF)

CovaChem's Molecular Biology Grade DMF is used to dissolve protein modification or crosslinking reagents at high concentrations prior to the addition to aqueous solutions. This solvent is free of primary amines and has very low water content to prevent undesirable reagent degradation.

CAS #: 68-12-2

Purity: ≥ 99.9% (typical 99.99%)



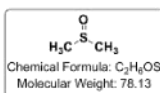
Size	Part No.	Price
2 x 25 mL	18251-2x25	\$29.00
10 x 25 mL	18251-10x25	\$220.00

Molecular Biology Grade Dimethylsulfoxide (DMSO)

CovaChem's Molecular Biology Grade DMSO is low in water content, and is often the first choice to dissolve both sulfonated and non-sulfonated protein crosslinking reagents and modifiers at a high concentrations prior to use in aqueous solutions.

CAS #: 67-56-1

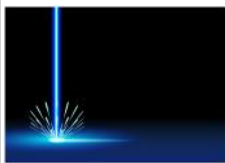
Purity: ≥ 99.8% (typical 99.9%)



Size	Part No.	Price
2 x 25 mL	18252-2x25	\$29.00
10 x 25 mL	18252-10x25	\$220.00



ULTRAPURE MALDI MATRICES



MALDI matrices are chemical compounds used to facilitate the ionization of molecules by MALDI-MS. The purity and crystalline nature of the matrix is important in delivering optimal ionization results. CovaChem's MALDI matrices are refined through multiple processes prior to final recrystallization to deliver matrices of exceptional purity to deliver ideal ionization with sensitivity and consistency.

CHCA | DHB | HABA | MBT | SA

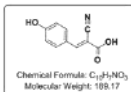
UltraPure α -Cyano-4-hydroxycinnamic acid (CHCA)

CHCA is a common first choice MALDI matrix for the MALDI-MS analysis of peptides, lipids and nucleic acids below 3,000 Daltons. CovaChem's UltraPure MALDI matrix is developed to assist in improved co-crystallization of sample, improved ionization efficiency and high sensitivity.

CAS#: 28166-41-8

λ max: 337, 355 nm

Purity: $\geq 99.5\%$

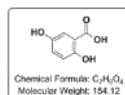


Size	Part No.	Price
24 x 1 mg	15101-24x1	\$66.00
5 x 10 mg	15101-5x10	\$30.00
100 mg	15101-100	\$49.00
1 gram	15101-1	\$179.00

Size	Part No.	Price
24 x 4 mg	15102-24x4	\$77.00
5 x 10 mg	15102-5x10	\$30.00
100 mg	15102-100	\$49.00
1 gram	15102-1	\$179.00

UltraPure 2,5-Dihydroxybenzoic acid (DHB)

DHB is a MALDI matrix commonly used to analyze peptides, nucleic acids, and small molecules. DHB is highly soluble allowing for more matrix to be mixed with samples. CovaChem's UltraPure DHB is designed to aid in improving sample co-crystallization, increase sensitivity and signal to noise.



CAS#: 490-79-9

λ max: 266, 337, 355 nm

Purity: $\geq 99.5\%$

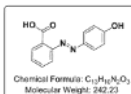
UltraPure 2-(4'-Hydroxybenzeneazo)benzoic acid (HABA)

CovaChem's UltraPure HABA is a highly purified and recrystallized MALDI matrix that is useful for the MALDI-MS analysis of glycoproteins, glycolipids, and polymeric compounds.

CAS#: 1634-82-8

λ max: 266, 337, 355 nm

Purity: $\geq 99.5\%$

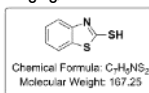


Size	Part No.	Price
24 x 1 mg	15105-24x1	\$66.00
5 x 10 mg	15105-5x10	\$30.00
100 mg	15105-100	\$49.00
1 gram	15105-1	\$179.00

Size	Part No.	Price
24 x 1 mg	15104-24x1	\$66.00
5 x 10 mg	15104-5x10	\$30.00
100 mg	15104-100	\$49.00
1 gram	15104-1	\$179.00

UltraPure Mercaptobenzothiazole (MBT)

CovaChem's UltraPure Mercaptobenzothiazole (MBT) is a highly refined and recrystallized MALDI matrix useful for analyzing proteins, peptides, and polymers. This matrix is also useful for MALDI imaging, and has a higher tolerance for samples containing surfactants.



CAS#: 149-30-4

λ max: 266, 337, 355 nm

Purity: $\geq 99.5\%$

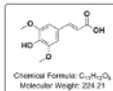
UltraPure Sinapinic acid (SA)

Sinapinic acid (SA), also known as Sinapic acid, is generally the best first choice for analyzing large proteins, lipids or other high molecular weight compounds. With CovaChem's 1 mg and 10 mg premeasured packaging, preparing fresh MALDI matrix has never been simpler.

CAS#: 530-59-6

λ max: 266, 337, 355 nm

Purity: $\geq 99.5\%$



Size	Part No.	Price
24 x 1 mg	15103-24x1	\$66.00
5 x 10 mg	15103-5x10	\$30.00
100 mg	15103-100	\$49.00
1 gram	15103-1	\$179.00



LCMS ADDITIVES

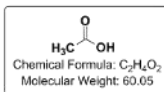
CovaChem's LCMS Grade Additives are among the highest quality in the industry. Each lot is inspected and tested for properties that are important to chromatography, absorbance, and ionization. These products come in convenient package sizes for freshness and easy preparation. Preparing fresh mobile phases is now a snap with CovaChem's 1 mL ampules.



Acetic Acid | Formic Acid | HFBA | TEA | TFA | Propionic Acid

LCMS Grade Acetic Acid (≥ 99.8 %)

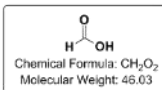
LCMS grade Acetic Acid is useful in LCMS and HPLC applications for acidic pH control with minimum ion pairing effects.



Size	Part No.	Price
10 x 1 mL Ampules	11201-10x1	\$32.00
25 mL	11201-25	\$48.00

LCMS Grade Formic Acid (≥ 99 %)

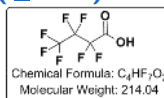
LCMS grade Formic Acid is useful in LCMS and HPLC applications for acidic pH control with minimum ion pairing effects. Formic acid is often used in TFA fix applications.



Size	Part No.	Price
10 x 1 mL Ampules	11202-10x1	\$32.00
25 mL	11202-25	\$47.00

LCMS Grade Heptafluorobutyric Acid (≥ 99 %)

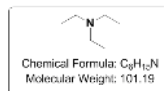
HFBA is a weak acid, and a moderate ion pairing agent. HFBA, in a highly refined form is well suited for liquid chromatography as it commonly improves peak shape and analyte separation.



Size	Part No.	Price
10 x 1 mL Ampules	11203-10x1	\$43.00
25 mL	11203-25	\$54.00

UltraPure Triethylamine (≥ 99.5 %)

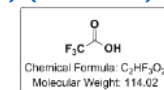
CovaChem's UltraPure TEA is a useful ion pairing agent for HPLC applications. TEA can be added to the mobile phase alone or be combined with an acid, such as Phosphoric acid (NCl301).



Size	Part No.	Price
10 x 1 mL Ampules	11205-10x1	\$41.00
25 mL	11205-25	\$49.00

LCMS Grade Trifluoroacetic Acid (TFA) (≥ 99.5 %)

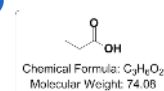
TFA is one of the most widely used ion pairing chromatography additives used in HPLC and LCMS. The weak ion pairing property of TFA can considerably improve peak shape and separation.



Size	Part No.	Price
10 x 1 mL Ampules	11204-10x1	\$35.00
25 mL	11204-25	\$49.00

LCMS Grade Propionic Acid (≥ 99.5 %)

CovaChem's LCMS Grade Propionic Acid is designed for use in HPLC and LCMS applications. This product is useful as a mobile phase component or post column as a TFA fix.



Size	Part No.	Price
10 x 1 mL Ampules	11206-10x1	\$39.00
25 mL	11206-25	\$48.00

LCMS GRADE ORGANIC BUFFERS

CovaChem's organic buffer salts are designed to deliver excellent mobile phase pH control, enhanced ionization in the mass spectrometer and minimal background interference.

Ammonium Acetate | Ammonium Formate



LCMS Grade Ammonium Acetate

CovaChem's LCMS Grade Ammonium Acetate is a mobile phase buffer that enhances pH control without MS signal interference.

Size	Part No.	Price
10 x 7.708 g	19110-10pk	\$89.00
25 grams	19110-25	\$49.00
100 grams	19110-100	\$169.00
250 grams	19110-250	\$375.00

MW: 77.08
pKa: 4.8
pH Range: 3.8 to 5.8

LCMS Grade Ammonium Formate

CovaChem's LCMS Grade Ammonium Formate is an MS compatible organic buffer salt that provides excellent pH control.

Size	Part No.	Price
10 x 6.306 g	19111-10pk	\$89.00
25 grams	19111-25	\$49.00
100 grams	19111-100	\$169.00
250 grams	19111-250	\$375.00

MW: 63.06
pKa: 3.8
pH Range: 2.8 to 4.8



HPLC GRADE SOLVENTS



CovaChem's HPLC grade solvents are designed to have exceptionally high purity, minimal interference, and very low absorbance values at commonly used wavelengths.

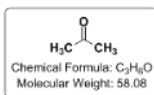
Acetone | Acetonitrile | Heptane | Hexanes | Methanol | Isopropanol | Water

HPLC Grade Acetone

HPLC Grade Acetone is a polar organic solvent widely utilized in the laboratory. CovaChem's HPLC grade Acetone is well suited for many laboratory, synthetic applications, and is designed for use in HPLC.

CAS #: 67-64-7

Purity: $\geq 99.9\%$



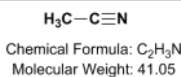
Size	Part No.	Price
1 L	16304-1	\$76.00
4 L	16304-4	\$104.00
4 x 4 L	16304-4x4	\$339.00

HPLC Grade Acetonitrile

CovaChem's HPLC Grade Acetonitrile is a highly refined polar organic solvent used in reverse phase high performance liquid chromatography. This product is designed and tested to be exceptionally pure and to be free of trace impurities that cause baseline interferences.

CAS #: 75-05-8

Purity: $\geq 99.9\%$



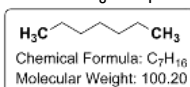
Size	Part No.	Price
1 L	16302-1	\$87.00
4 L	16302-4	\$159.00
4 x 4 L	16302-4x4	\$424.00

HPLC Grade Heptane (n-Heptane)

HPLC Grade Heptane is a non-polar solvent which is utilized in synthetic organic chemistry, flash chromatography, and normal phase high performance liquid chromatography. This long chain hydrocarbon is refined to meet the stringent requirement of HPLC applications.

CAS #: 142-82-5

Purity: $\geq 99.8\%$



Size	Part No.	Price
1 L	16307-1	\$149.00
4 L	16307-4	\$289.00
4 x 4 L	16307-4x4	\$789.00

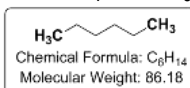
HPLC Grade Hexane (n-Hexane)

HPLC Grade Hexane is a widely used non-polar organic solvent. CovaChem's HPLC grade Hexane is well suited for synthetic use, numerous forms of column chromatography, and is ideally suited normal phase High Performance Liquid Chromatography.

CAS #: 110-54-3

n-Hexane Purity: $\geq 95\%$ (typical 97.8 %)

Hexane Isomers Purity: $> 99.0\%$ (typical 99.8 %)



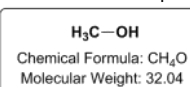
Size	Part No.	Price
1 L	16305-1	\$89.00
4 L	16305-4	\$139.00
4 x 4 L	16305-4x4	\$399.00

HPLC Grade Methanol

CovaChem's HPLC Grade Methanol is a highly refined polar organic solvent commonly utilized in reverse phase high performance liquid chromatography. This product is designed and tested to be exceptionally pure and to be free of trace impurities that cause baseline interferences.

CAS #: 67-56-1

Purity: $\geq 99.9\%$ (typical 99.99 %)



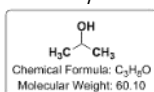
Size	Part No.	Price
1 L	16303-1	\$66.00
4 L	16303-4	\$122.00
4 x 4 L	16303-4x4	\$324.00

HPLC Grade Isopropanol (2-Propanol)

HPLC Grade Isopropanol is a polar organic solvent with many laboratory applications. CovaChem's IPA is ideally suited as a mobile phase for high performance liquid chromatography, other forms of chromatography or general laboratory use.

CAS #: 67-63-0

Purity: $\geq 99.5\%$ (typical 99.96 %)



Size	Part No.	Price
1 L	16306-1	\$66.00
4 L	16306-4	\$122.00
4 x 4 L	16306-4x4	\$324.00

HPLC Grade Water (H₂O)

HPLC Grade Water is a polar solvent intended for use in high performance liquid chromatography applications, as well as other suitable general laboratory uses.

CovaChem's HPLC Water is designed and tested for optimally low background absorbance levels.

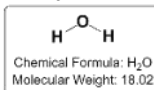
CAS #: 7732-18-5

A190 nm < 0.01

A250 nm < 0.005

A200 nm < 0.01

A400 nm < 0.005



Size	Part No.	Price
1 L	16301-1	\$29.00
4 L	16301-4	\$79.00
4 x 4 L	16301-4x4	\$229.00



LCMS GRADE SOLVENTS



The inherent sensitivity of mass spectrometers require that the solvents used in LCMS and LC-MS/MS are not only chemically pure, but also free of even low levels of ionizable impurities, trace metal contaminants and other impurities. CovaChem's LCMS Grade Solvents are specifically designed to provide optimal and consistent results.

Acetonitrile | Methanol | Water

LCMS Grade Acetonitrile

CovaChem's LCMS Grade Acetonitrile is specifically designed to give optimal performance in LCMS and LC-MS/MS applications with exceptionally low level ionizable impurities. This product is routinely used in the LCMS analysis of both small organic compounds and large biomolecules.

CAS #: 75-05-8

Purity: $\geq 99.9\%$



Chemical Formula: $\text{C}_2\text{H}_3\text{N}$
Molecular Weight: 41.05

Size	Part No.	Price
1 L	17412-1	\$73.00
4 L	17412-4	\$279.00
4 x 4 L	17412-4x4	\$799.00

LCMS Grade Methanol

CovaChem's LCMS Grade Methanol is an optimal LCMS and LC-MS/MS mobile phase designed to give exceptional low level ionization and UV baselines. This product contains exceptionally low levels of ionizable matter, necessary for reliable LCMS method development.

CAS #: 67-56-1

Purity: $\geq 99.9\%$



Chemical Formula: CH_4O
Molecular Weight: 32.04

Size	Part No.	Price
1 L	17413-1	\$74.00
4 L	17413-4	\$174.00
4 x 4 L	17413-4x4	\$724.00

LCMS Grade Water

CovaChem's LCMS Grade Water is of exceptionally high purity designed to render optimal baselines in LCMS and LC-MS/MS applications. CovaChem's LCMS Grade Water is consistent and reliable for the analysis of organic compounds and large biomolecules.

CAS #: 7732-18-5



Chemical Formula: H_2O
Molecular Weight: 18.02

Size	Part No.	Price
1 L	17411-1	\$39.00
4 L	17411-4	\$129.00
4 x 4 L	17411-4x4	\$349.00

DERIVATIZATION GRADE SOLVENTS

Derivatization of samples containing organic compounds is conducted to improve detection and quantification of difficult to analyze molecules by GC and GC/MS. Complete derivatization is dependent on not only the quality of the derivatization reagent, but also the purity of the reaction solvent. CovaChem's high purity, low water containing solvents is specifically designed for use in GC derivatization reactions.



Acetonitrile | Dimethylformamide | Dimethylsulfoxide | Pyridine

Derivatization Grade Acetonitrile

MW: 41.05

bp: 179.6 °C

Purity: $\geq 99.9\%$

CAS#: 75-05-8

Size	Part No.	Price
2 x 25 mL	18201-2x25	\$25.00
10 x 25 mL	18201-10x25	\$170.00

Derivatization Grade DMF

MW: 73.09

bp: 153 °C

Purity: $\geq 99.9\%$

CAS#: 68-12-2

Size	Part No.	Price
2 x 25 mL	18202-2x25	\$29.00
10 x 25 mL	18202-10x25	\$220.00

Derivatization Grade DMSO

MW: 78.13

bp: 189 °C

Purity: $\geq 99.9\%$

CAS#: 67-68-5

Size	Part No.	Price
2 x 25 mL	18203-2x25	\$29.00
10 x 25 mL	18203-10x25	\$220.00

Derivatization Grade Pyridine

MW: 79.10

bp: 115.2 °C

Purity: $\geq 99.9\%$

CAS#: 110-86-1

Size	Part No.	Price
2 x 25 mL	18204-2x25	\$35.00
10 x 25 mL	18204-10x25	\$270.00



MOLECULAR BIOLOGY GRADE BUFFERS



CovaChem offers a wide range of molecular biology grade buffers for use in the most sensitive of biological applications. All of CovaChem's Molecular Biology grade buffers are DNase, RNase and protease free. As with all of CovaChem's products, these buffer salts and DryBlend products are intended for use in sensitive applications, and are of the highest quality in the industry.

Glycine | HEPES | MES | Sodium Bicarb | Sodium Carbonate | Sodium Phosphate | Tris | Tris-HCl | Carb-Bicarb | TBS | PBS | MES Saline

Glycine

CovaChem's Molecular Biology Grade Glycine is a simple amino acid, and is used in the preparation of biological buffers. It has multiple pKa, giving it a wide range of utility. Glycine is also used to quench unreacted NHS and Sulfo-NHS esters.

MW: 75.07

pKa: 2.3, 9.6

pH Range: 0.8 to 3.8
8.1 to 11.1

Size	Part No.	Price
25 g	19103-25	\$18.00
250 g	19103-250	\$59.00

HEPES

CovaChem's Molecular Biology Grade HEPES, also known as 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid is a zwitterionic buffer used at near neutral pH in biological applications.

MW: 238.30

pKa: 7.5

pH Range: 6.5 to 8.5

Size	Part No.	Price
25 g	19102-25	\$18.00
250 g	19102-250	\$109.00

MES

CovaChem's Molecular Biology Grade MES, also known as 2-(N-morpholino)ethanesulfonic acid is a buffer used at near neutral pH in biological applications. MES is most commonly used in coupling reactions involving EDC-HCL (CovaChem 13503).

MW: 195.2

pKa: 6.15

pH Range: 5.0 to 7.4

Size	Part No.	Price
25 g	19101-25	\$18.00
250 g	19101-250	\$139.00

Sodium Bicarbonate

CovaChem's Molecular Biology Grade Sodium bicarbonate is a buffer used at near neutral or basic pHs in in vitro biological applications.

MW: 84.01

pKa: 6.4 & 10.3

pH Range: 4.9 to 7.9
8.8 to 11.8

Size	Part No.	Price
25 g	19106-25	\$19.00
250 g	19106-250	\$59.00

Sodium Carbonate

CovaChem's Molecular Biology Grade Sodium carbonate is a biological buffer with multiple pKa. The Carb-Bicarbonate system is often employed for in vitro studies at neutral or basic pHs.

MW: 105.99

pKa: 6.4 & 10.3

pH Range: 4.9 to 7.9
8.8 to 11.8

Size	Part No.	Price
25 g	19107-25	\$19.00
250 g	19107-250	\$59.00

Sodium Phosphate Monobasic

CovaChem's Molecular Biology Grade Sodium Phosphate Monobasic is part of the phosphate buffering system, which is one of the most common physiological buffering systems employed. This product is sold as the dehydrate.

MW: 156.01

pKa: 2.15, 7.2, 12.4

Size	Part No.	Price
25 g	19108-25	\$22.00
250 g	19108-250	\$89.00

Sodium Phosphate Dibasic

CovaChem's Molecular Biology Grade di-Sodium hydrogen Phosphate is sold in the anhydrous form. This buffer is commonly utilized in biological applications at a wide range of pH values.

MW: 141.96

pKa: 2.15, 7.20, 12.4

Size	Part No.	Price
25 g	19109-25	\$22.00
250 g	19109-250	\$89.00

Tris

CovaChem's Molecular Biology Grade Tris is a common biological buffer at pH values neutral to slightly alkaline. Tris contains a free amine, which also makes it useful for quenching NHS crosslinking and biotinylation reactions.

MW: 121.14

pKa: 8.06

pH Range: 7.0 to 9.0

Size	Part No.	Price
25 g	19104-25	\$19.00
250 g	19104-250	\$99.00



Tris-HCl

CovaChem's Molecular Biology Grade Tris-HCl is a commonly used near neutral or slightly alkaline buffer in biochemical applications.

MW: 157.59

pKa: 8.06

pH Range: 7.0 to 9.0

Size	Part No.	Price
25 g	19105-25	\$19.00
250 g	19105-250	\$99.00

Carb-Bicarbonate, pH 9.4

CovaChem's DryBlend Carb-Bicarbonate buffer comes in an EZ-tear sealed pouch to easily make 500 mL of pH 9.4 of 200 mM carb-bicarb buffer. This buffer is suitable for coating plates with antibodies and many other biological applications.

Size	Part No.	Price
10 pouches	19210-10pk	\$39.00
50 pouches	19210-50pk	\$99.00

MES Buffered Saline, pH 4.7

CovaChem's DryBlend MES Buffered Saline comes in EZ-tear sealed pouches to quickly and simply prepare 500 mL of pH 4.7 buffer (100 mM MES with 0.9% NaCl). This amine free and carboxyl free buffer is designed for use in EDC carbodiimide coupling reactions. This product allows for fresh conjugation buffer in just minutes.

Size	Part No.	Price
10 pouches	19214-10pk	\$59.00
50 pouches	19214-50pk	\$179.00

Phosphate Buffered Saline, pH 7.2

CovaChem's DryBlend Phosphate Buffered Saline (PBS) comes in an EZ-tear sealed pouch to quickly and simply prepare 500 mL of pH 7.2 PBS. (100 mM Sodium Phosphate with 150 mM NaCl). This buffer is ideally suited for protein crosslinking, biotinylation and many other biological applications.

Size	Part No.	Price
10 pouches	19213-10pk	\$43.00
50 pouches	19213-50pk	\$109.00

Sodium Phosphate, pH 7.0

CovaChem's DryBlend Sodium Phosphate Buffer, pH 7.0 comes in EZ-tear sealed pouches to quickly and simply prepare 500 mL of 100 mM Sodium Phosphate Buffer, pH 7.0. This product enables the fresh preparation of this widely used biological buffer in just a few minutes.

Size	Part No.	Price
10 pouches	19212-10pk	\$39.00
50 pouches	19212-50pk	\$99.00

Tris Buffered Saline, pH 7.2

CovaChem's DryBlend Tris Buffered Saline (TBS) in EZ-tear sealed pouches simply and quickly makes 500 mL TBS, pH 7.2 (25 mM Tris with 150 mM NaCl). This reconstituted buffer is well suited for use in ELISA, Western Blotting, and other biological applications.

Size	Part No.	Price
10 pouches	19211-10pk	\$39.00
50 pouches	19211-50pk	\$109.00

CovaChem's DryBlend Buffers are pre-formulated for easy one step buffer preparation. These time saving, tear-open pouches make preparing a variety of buffers simple and fast.

Contact customer service for custom buffer blends to best suit your research needs.





GC DERIVATIZATION

Derivatization of samples containing organic compounds is performed to improve the samples performance in the gas chromatograph. Derivatizing a sample through silylation, acylation or alkylation can allow for easier detection of the analyte of interest. CovaChem offers a wide range of derivatization reagents to assist in better sample analysis.



SILYLATION REAGENTS



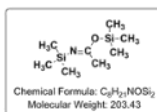
Silylation is one of the most common forms of derivatization for gas chromatography. Silylation reagents are used to replace the active hydrogen of acids, alcohols, thiols, amines, amides, aldehydes, and phenols with a trimethylsilyl group.

The addition of a trimethylsilyl (TMS) group generally improves the performance of polar compounds in GC and GC/MS applications. The TMS derivatives tend to increase volatility and thermal stability of the derivatized compounds, creating sharper earlier eluting peaks, and distinct fragmentation patterns in GC/MS applications.

Silylation reagents are naturally reactive with water, therefore solvent quality is also important. For this reason, CovaChem carries a selection of anhydrous derivatization grade solvents that are of exceptionally high purity.

BSA | BSTFA | MSTFA | MTBSTFA | TMSI | TMCS

BSA | N,O-Bis(trimethyl)acetamide



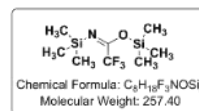
BSA is a silylation reagent which is a strong trimethylsilyl donor. BSA is routinely used to derivatize amines, alcohols, amides, carboxylic acids, steroids, and phenols. BSA can be used with or without TMCS (CovaChem 12109).

Size	Part No.	Price
10x1 gram	12101-10x1	\$30.00
25 grams	12101-25	\$40.00
100 grams	12101-100	\$99.00

BSTFA | N,O-Bis(trimethylsilyl)trifluoroacetamide

Size	Part No.	Price
10x1 gram	12102-10x1	\$34.00
25 grams	12102-25	\$44.00
100 grams	12102-100	\$107.00

BSTFA is silylation reagent which is a strong trimethylsilyl donor. BSTFA is used to derivatize amines, alcohols, amides, carboxylic acids, steroids and phenols. The reaction by products of BSTFA tend to be increasingly volatile and faster eluting than derivatives of BSA.



BSTFA with 1% TMCS

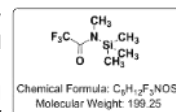
BSTFA also comes preformulated from CovaChem with 1% TMCS, which has been shown to increase the efficiency of silylation reactions for difficult to silylate compounds, such as hindered hydroxyl compounds and some secondary amines.

Size	Part No.	Price
10x1 gram	12102T-10x1	\$39.00
25 grams	12102T-25	\$49.00
100 grams	12102T-100	\$115.00

MSTFA | N-Methyl-N-trimethylsilyltrifluoroacetamide

Size	Part No.	Price
10x1 gram	12104-10x1	\$34.00
25 grams	12104-25	\$44.00
100 grams	12104-100	\$107.00

MSTFA is a strong trimethylsilyl donating silylation reagent. MSTFA is commonly employed to derivatize amines, alcohols, amides, carboxylic acids, steroids and phenols. The reaction by products of MSTFA tend to form the most volatile and faster eluting than derivatives of the compounds in this series. This compound and its by products tend to elute with the solvent front, allowing the effective analysis of particularly small compounds.



MSTFA with 1% TMCS

MSTFA also comes preformulated from CovaChem with 1% TMCS, which has been shown to increase the efficiency of silylation reactions for difficult to silylate compounds.

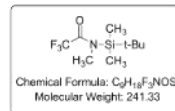
Size	Part No.	Price
10x1 gram	12104T-10x1	\$39.00
25 grams	12104T-25	\$49.00
100 grams	12104T-100	\$115.00



MTBSTFA | N-(t-butyldimethylsilyl)-N-methyltrifluoroacetamide

Size	Part No.	Price
10x1 gram	12107-10x1	\$45.00
25 grams	12107-25	\$60.00
100 grams	12107-100	\$149.00

MTBSTFA forms highly hydrolytically stable TBDMCS ether derivatives with carboxylic acids, thiols, alcohols, primary amines, and secondary amines. MTBSTFA is known to give exceptionally high yields and produces neutral and volatile reaction by products.



MTBSTFA with 1% TBDMCS

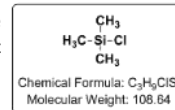
CovaChem' MTBSTFA also comes preformulated with 1% TBDMCS, which has shown to increase the silylation potential and reaction efficiency.

Size	Part No.	Price
10x1 gram	12107T-10x1	\$47.00
25 grams	12107T-25	\$62.00
100 grams	12107T-100	\$151.00

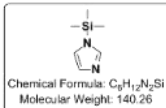
TMCS | Trimethylsilyl chloride

Size	Part No.	Price
10x1 gram	12109-10x1	\$30.00
25 grams	12109-25	\$20.00
100 grams	12109-100	\$29.00

TMCS is used as both a catalyst and a stand alone silylation reagent. As a stand alone reagent, TMCS is most frequently used to replace the active hydrogen of a carboxylic acid with a trimethylsilyl group.



TMSI | Trimethylsilylimidazole

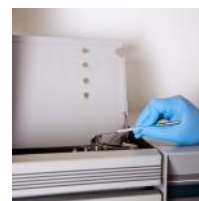


TMSI is the most strongest silylation reagents for adding a trimethylsilyl group to hydroxyl groups and carboxylic acids. Conveniently, this reagent does not react with amines or amides. This allows for multi-dimensional derivatization allowing for a better understanding of the analyte. This reagent is most commonly used to derivatize sugars and steroid hydroxyl groups.

Size	Part No.	Price
10x1 gram	12108-10x1	\$44.00
25 grams	12108-25	\$59.00
100 grams	12108-100	\$159.00

GC DERIVATIZATION - ACYLATION

Acylation reagents are used to convert compounds with active hydrogen atoms into compounds that are less polar, more volatile and often give increased GC response. Compounds such as amines (-NH), alcohols (-OH) and thiols (-SH) when reacted with an acylation reagent, render an amide, ester, and thioester respectively. Each of these products are well suited for gas chromatography.



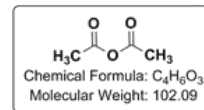
The fluorinated derivatization reagents not only allow for better separation, but also enhance detectability and increase sensitivity when used with an electron capture detector (ECD).

Acetic Anhydride | HFBA | HFBI | HFIP | MBTFA | PFAA | PFPOH | PPA | TFAA | TFAI

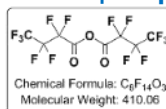
Acetic Anhydride

Size	Part No.	Price
10x1 gram	12211-10x1	\$30.00
25 grams	12211-25	\$28.00
100 grams	12211-100	\$39.00

Acetic anhydride is a common acylation reagent used in GC derivatization and synthetic organic applications. This is a useful reagent for acylating alcohols, phenols, primary amines and secondary amines creating analytes more suitable to gas chromatography.



HFBA | Heptafluorobutyric acid anhydride



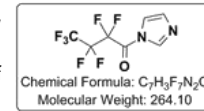
HFBA, also known as HFBA for Heptafluorobutyric anhydride, is a fluorinated acylation reagent. HFBA is commonly used to derivatize primary amines, secondary amines, thiols, alcohols and phenols. HFBA may also be combined with triethylamine (CovaChem 11205) to pair with the acidic by products formed in these reactions.

Size	Part No.	Price
10x1 gram	12203-10x1	\$42.00
25 grams	12203-25	\$67.00
100 grams	12203-100	\$209.00

HFBI | Heptafluorobutyrylimidazole

Size	Part No.	Price
5x1 gram	12209-10x1	\$42.00
10 grams	12209-25	\$62.00
25 grams	12209-100	\$97.00

HFBI is a fluorinated acylation reagent used for derivatizing primary and secondary amines, alcohols, and ideally suited for indole alkylamines. One particular advantage of HFBI, is that no acid by-products are formed, as only an inert leaving group of imidazole is formed in this reaction.



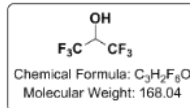


GC Derivatization - Acylation

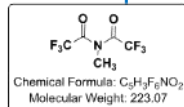
HFIP | 1,1,1,3,3,3-Hexafluoro-2-propanol

Size	Part No.	Price
10x1 gram	12206-10x1	\$38.00
25 grams	12206-25	\$44.00
100 grams	12206-100	\$129.00

HFIP is a fluorinated alcohol that can be used to acylate carboxylic acids, forming a fluorinated ester through a two step reaction process. This incorporation of fluorine atoms has beneficial effects on detection with GC/MS and with TCD detectors. HFIP can also be used as an effective fluorinated ion pairing reagent in HPLC applications.



MBTFA | N-Methyl-bis(trifluoroacetamide)



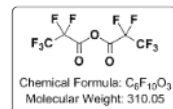
MBTFA is an fluorinated acetylation reagent. MBTFA is useful for derivatizing primary amines, secondary amines, alcohols, phenols and thiols. Reactions with this reagent are generally mild, and non-acidic, with the primary by-product being the inert N-Methyltrifluoroacetamide compound.

Size	Part No.	Price
10x1 gram	12204-10x1	\$36.00
25 grams	12204-25	\$79.00
100 grams	12204-100	\$199.00

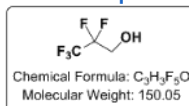
PFAA | Pentafluoropropionic Acid Anhydride

Size	Part No.	Price
10x1 gram	12202-10x1	\$42.00
25 grams	12202-25	\$88.00
100 grams	12202-100	\$219.00

PFAA, also known as PFPA for Pentafluoropropionic anhydride, is a fluorinated acylation reagent that adds an additional five fluorines to the sample. PFAA is commonly used to derivatize primary amines, secondary amines, thiols, alcohols and phenols. PFAA may also be used together with Triethylamine (CovaChem 11205) to react with the acidic by products formed in these reactions.



PFPOH | Pentafluoropropanol



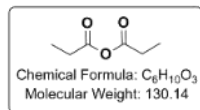
Pentafluoropropanol is a fluorinated alcohol that is used to derivatize carboxylic acids by first reacting the acid sample with an anhydride, followed by the addition of PFPOH, converting the original sample into a fluorinated ester. The additional fluorine atoms improve the analyte detection by ECD and GC/MS.

Size	Part No.	Price
10x1 gram	12205-10x1	\$42.00
25 grams	12205-25	\$69.00
100 grams	12205-100	\$219.00

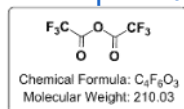
PPA | Propionic Anhydride

Size	Part No.	Price
10x1 gram	12208-10x1	\$38.00
25 grams	12208-25	\$44.00
100 grams	12208-100	\$98.00

Propionic anhydride is an acylation reagent used in GC derivatization and synthetic organic applications. This is a useful reagent for acylating alcohols, phenols, primary amines and secondary amines creating analytes more suitable to gas chromatography.



TFAA | Trifluoroacetic Acid Anhydride



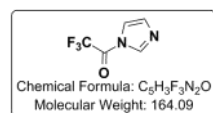
TFAA, is the shortest fluorinated acylation reagent of the series. TFAA is commonly used to derivatize primary amines, secondary amines, thiols, alcohols and phenols. It may be desirable to combine TFAA with Triethylamine (CovaChem 11205) to pair with the acidic by products formed in these reactions.

Size	Part No.	Price
10x1 gram	12201-10x1	\$38.00
25 grams	12201-25	\$69.00
100 grams	12201-100	\$109.00

TFAI | Trifluoroacetylimidazole

Size	Part No.	Price
10x1 gram	12210-10x1	\$59.00
25 grams	12210-25	\$119.00
100 grams	12210-100	\$479.00

TFAI is a convenient fluorinated acylating reagent used to derivatize primary amines, secondary amines, alcohols, and phenols. This reagent does not create acid by products typically formed by the anhydride acylation reagents. The primary by product is the inert leaving group of imidazole.





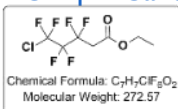
ALKYLATION

Alkylation Reagents are compounds used to transfer an alkyl group to the sample analyte. This group of compounds is used to replace acidic hydrogen atoms with an aliphatic or aromatic group. This reaction tends to increase sample volatility and reduce polarity, allowing for improved separation and detections.



4-CB | PFBBr | TMAH in Methanol

4-CB | 4-Carbethoxyhexafluorobutyl chloride



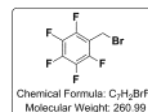
4-CB is an alkylation reagent used to improve volatility and separations for gas chromatography. 4-CB is commonly used to derivatize amphetamine metabolites in blood samples prior to analysis by GC.

Size	Part No.	Price
5x1 gram	12207-5x1	\$99.00
10 grams	12207-10	\$189.00
25 grams	12207-25	\$379.00

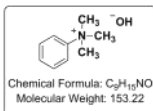
PFBBr | Pentylfluorobenzyl Bromide

Size	Part No.	Price
10x1 gram	12301-10x1	\$58.00
25 grams	12301-25	\$97.00
100 grams	12301-100	\$297.00

Pentylfluorobenzyl bromide is a fluorinated alkylation reagent used to derivatize compounds for analysis by GC/MS and ECD detection methods. This compound is generally reactive towards alcohols, phenols, carboxylic acids and sulfonamides.



0.2 M Trimethylanilinium Hydroxide (TMAH) in Methanol



0.2 M TMAH in Methanol, also known as TMPAH, is a methylation reagent used to derivatize amines, alcohols, phenols and carboxylic acids. This compound has been used to test for numerous drugs and drug metabolites, such as sedatives and barbiturates. TMAH tends to give high yields for the derivatization of barbiturates and other compounds.

Size	Part No.	Price
10 mL	12302-10	\$35.00
25 grams	12302-25	\$69.00

PURIFIED ENZYMES

CovaChem's purified enzymes are ideally suited for toxicology and drug testing applications. CovaChem's β -Glucuronidase is isolated from Red Abalone, and is highly active and consistently prepared for reliable results. This enzyme is available in both the powder form and as an easy to use aqueous solution.

Beta-Glucuronidase Powder | Beta-Glucuronidase Solution

Beta-Glucuronidase Powder

β -Glucuronidase is an enzyme used to hydrolytically cleave glucuronides from steroid glucuronides or other glucuronide conjugates. This enzyme is often used in drug testing or toxicology applications prior to analysis by GCMS, LCMS or immunoassays. CovaChem's Abalone derived Beta-Glucuronidase Powder is optimally prepared to provide exceptionally high activity and ease of solubility in water.

Size	Part No.	Price
250,000 Units	20102-250	\$49.00
500,000 Units	20102-500	\$75.00
1,000,000 Units	20102-1	\$119.00
2,000,000 Units	20102-2	\$209.00

Beta-Glucuronidase Solution

Size	Part No.	Price
5 mL	20101-5	\$75.00
10 mL	20101-10	\$120.00
25 mL	20101-25	\$275.00
50 mL	20101-50	\$535.00

β -Glucuronidase is an enzyme used to hydrolytically cleave glucuronides from steroid glucuronides or other glucuronide conjugates. This enzyme is often used in drug testing or toxicology applications prior to analysis by GCMS, LCMS or immunoassays. CovaChem's Abalone derived Beta-Glucuronidase Solution comes in an autosampler friendly, 100,000 Unit/mL solution. This no-fuss premade solution makes it easy to dispense the correct amount of enzyme time after time.



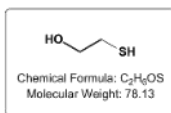
CHEMICAL REAGENTS



CovaChem's compilation of chemical reagents are compounds with utility in life science research. Each of these compounds is of very high quality, and intended for use in molecular and cellular biology applications.

β -ME | β -Mercaptoethanol

β -Mercaptoethanol, also known as 2-Mercaptoethanol or 2-ME, is a thiol containing reducing agent. This compound is used in many biological and chemical applications. Large bottles of 2-ME forms disulfide dimers due to the presence of oxygen in the bottle, which decreases its reducing capacity. CovaChem's β -ME comes packed under Nitrogen in 1 mL ampules or in a 25 mL bottle, allowing for fresh β -ME with each use.



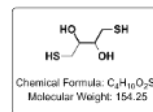
Size	Part No.	Price
10 x 1 grams	11301-10x1	\$19.00
25 grams	11301-25	\$24.00
4 x 25 grams	11301-4x25	\$69.00

Size	Part No.	Price
10 x 5 mg	11302-10x5	\$19.00
1 gram	11302-1	\$29.00

DTT | Dithiothreitol

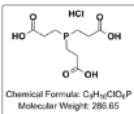
DTT is a useful reducing agent in biological assays. DTT is a common component in gel loading buffers and in other applications where protein disulfide network reduction is desirable.

CovaChem's pre-weighed DTT is both affordable and convenient. It is supplied in single use 10 x 5 mg packaging for quick and easy reconstitution and high throughput applications.



TCEP-HCL | Tris(2-carboxyethyl) phosphine

TCEP is a powerful reducing agent. This reagent is lower odor than other reductants, and is free of mercaptans (-SH). TCEP is stable to air oxidation, and works to reduce disulfides within just a couple of minutes. TCEP is also available in an easy to use 500 mM solution (CovaChem 11309).

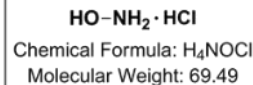


Size	Part No.	Price
1 gram	11303-1	\$29.00
5 grams	11303-5	\$129.00
25 grams	11303-25	\$489.00

Size	Part No.	Price
25 grams	11304-25	\$19.00

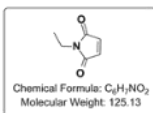
Hydroxylamine HCL

Hydroxylamine is highly water soluble, and has a wide range of molecular biology and organic synthesis. Hydroxylamine HCl is commonly used to deprotect SATA (CovaChem 14102) modified proteins, crosslinks formed by EGS (CovaChem 13308) and Sulfo-EGS (CovaChem 13309), and to cleave Asn-Gly bonds.



NEM | N-Ethylmaleimide

N-Ethylmaleimide (NEM) is a Michael acceptor, reactive towards sulfhydryl (-SH) functional groups, such as those found on cysteines residues in proteins. This reaction is useful as an irreversible cysteine blocking agent. Blocking of cysteines is desirable in certain enzyme assays, and when it is necessary to prevent cysteine oxidation or other reactions involving cysteines -SH group.

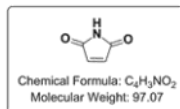


Size	Part No.	Price
5 grams	11305-5	\$29.00
25 grams	11305-25	\$89.00



Maleimide

Maleimide, also known as 2,5-Pyrolidione, is a reagent used in synthesis applications, and has some uses in protein modification chemistry. Maleimide is an effective blocking agent for cysteine's sulfhydryl (-SH) residues in proteins and peptides.

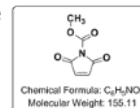


Size	Part No.	Price
5 grams	11306-5	\$19.00
25 grams	11306-25	\$59.00

Size	Part No.	Price
1 gram	11307-1	\$39.00
5 grams	11307-5	\$119.00
25 grams	11307-25	\$289.00

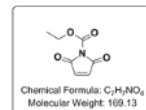
N-Methoxycarbonylmaleimide

N-Methoxycarbonylmaleimide is used in protein chemistry and other chemical applications. This compound is used to convert amines to maleimide, usually in an alkaline buffer such as sodium bicarbonate (CovaChem 19106).



N-Ethoxycarbonylmaleimide

N-Ethoxycarbonylmaleimide is similar to N-Methoxycarbonylmaleimide, and is used in protein chemistry and other chemical applications. This compound is used to convert amines to maleimide, usually in an alkaline buffer such as sodium bicarbonate (CovaChem 19106).

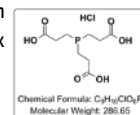


Size	Part No.	Price
1 gram	11308-1	\$37.00
5 grams	11308-5	\$109.00
25 grams	11308-25	\$279.00

Size	Part No.	Price
10 mL	11309-10	\$69.00

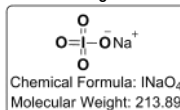
0.5 M TCEP Solution

TCEP is a useful low odor reducing agent. CovaChem supplies this reagent in this convenient liquid form at 500 mM for easy use and high throughput applications. This compound does not contain and mercaptan residues (-SH) that have the potential to interfere with reactions. TCEP is also available in the dry form in both catalog and bulk quantities (CovaChem 11303)



Sodium Meta-periodate

Sodium meta-periodate is an oxidizing agent commonly used to oxidize carbohydrates. This oxidation reagent is used to oxidize the hydroxyl group of glycoproteins for further reaction with amines or hydrazide containing compounds. With this reagent, and Biotin Hydrazide (CovaChem 14201), glycans or glycoproteins can be biotinylated for isolation or detection.



Size	Part No.	Price
25 grams	11310-25	\$27.00



Commitment to Excellence

CovaChem is committed to bringing our customers products that are among the highest quality in the Life Sciences industry. Likewise, we are passionate about bringing our customers the best value on the planet, allowing scientists to expand their budget and create additional opportunities.



CovaChem is a global shipper of nearly all of our products. Additionally, we are continually expanding our distribution network allowing even easier access to our products around the world.



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Email: info@CovaChem.com



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