



Interbiotech - BioScience Innovations

H10E

■ PEO/PEG Biochemistry

Key features

PolyEthyleneGlycol (PEG) (or PolyEthylOxy: PEO) structure improves features of your conjugates compared to conventional spacers (i.e. alkyls based) thanks their hydrophilicity conferred to conjugates, flexibility, adjustable spacer length...

PEG/PEO technology benefits :

- Increases water-solubility and biostability
- Minimizes aggregation of conjugates or conjugates/ligands complexes
- Not toxic, non immunogenic, superior bioavailability
- Increases bio-stability (minimized proteolytic cleavage; superior stability)
- Reduces non-specific bindings on surfaces

Available functionalities:

- Linear / branched
- Amine reactive : COOH, NHS, other esters
- Sulfhydryl reactive : Maleimide, pyridylthiol, silylone,...
- Hydrazide, Azide, Thiocyanate, Epoxy, Silane,...
- Labels: Biotin, Fluoresceins/Rhodamines/FluoProbes/...,

** Selected PEO crosslinkers - synthetic: (strictly defined (unique) structure)

PEO/PEG Product			Spacer	Functional group(s)	
Name	cat.number	MW	Length	group 1	group 2
Crosslinkers					
MAL-PEO ₄ -NHS Replaces sulfoSMCC #UP17412A	AL6580 , 100mg	513.5	24.8 Ang.	NHS	MAL
Available from MAL-PEO ₂ -NHS	BZ0981, 100mg	425.4	17.6 Ang.	NHS	MAL
to MAL-PEO ₂₄ -NHS	BM3011, 100mg	1394.55	95.2 Ang.	NHS	MAL
MAL-PEO ₄ -MAL (BM[PEO] ₄) Replaces	L7736A, 100mg	352.34	17.8 Ang.	MAL	MAL
NHS-PEO ₆ -NHS Replaces DSS/BS3 #UP54940A	BH8811, 100mg	532.50	21.7 Ang.	NHS	NHS
Linkers for organic synthesis					
t-Boc-amido-PEO ₃ -NH ₂	AK7881, 100mg	320.43	16.9 Ang.	NH ₂	NH ₂ §
N-CBZ-amido-PEO ₁₂ -COOH	BI0651, 100mg	751.86	46.5 Ang.	COOH	NH ₂ §
SH-PEO ₄ -COOH	AN1300, 100mg	282.35	18.3 Ang.	COOH	SH
Biotinylation agents					
Biotin-PEO ₄ -NHS Replaces sulfoNHS-Ic-Biotin #UP54398A	UPR20277A, 50mg	588.7	21.3 Ang.	NHS	Biotin
Biotin-PEO ₄ -TFPA	BT3621, 10mg	635.64	33 Ang.	TFPA	Biotin
Biotin-PEO ₄ -Maleimide Maleimido-Biotin #UP87284A	UPR2028A, 25mg	505.63	38 Ang.	MAL	Biotin
Biotin-PEO ₄ -Hydrazide	BJ008A, 50mg	505.63	20.6 Ang.	HYD	Biotin
Psoralen-PEO ₄ -Biotin	UPL77845, 10mg	688.80	36.9 Ang.	Psoralen	Biotin
Biotin-PEO ₄ -Amine	77872A, 100mg	418.56	22.9 Ang.	NH ₂	Biotin
Biotin-G-PEO ₄ -COOH	BJ007A, 50mg	491.60	19.2Ang.	COOH	Biotin

Below is a general information about PEG and PEG compounds, followed by a list of PEG and PEO reagents for crosslinking and labeling (biotin, FITC,...) or functionalizing.

[Ask Uptima](#) for PEG compound with minor structures differences, as well a new PEG compounds that are continuously created.

More information on PEO technology and products

(PEO: defined MW n=2-48 300-2000Da ; PEG: 400-40KDa ; anti PEG Antibody)

What is PEO, POE, PEG, dPEG, TEG ?

PEGylation reagents : Building blocks
Raw materials(EO, PEG)

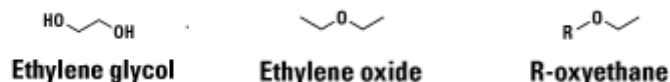
Properties of PEO/PEG

Crosslinkers (mono-, bi-, multi-fonctionnal, bnrached)
Labeling Agents(Biotinylation, Fluorophores, others)

Applications

What is PEO, PEO, PEG, dPEG ?

All terms correspond basically to the same chemical structure, and refer to repeats of ethylene glycol units. Depending on how one chooses to define the constituent monomer or parent molecule, one may then call:



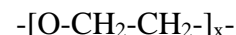
PEG is the common abbreviation for PolyEthylene Glycol – or, more properly, poly (ethylene glycol, EG units) –.

PEO refers to ‘PolyEthylene Oxide’ (also referred as **POE** for ‘PolyOxyEthylene’), and even **EPO** (‘EthylenePolyOxid’).

TEG makes analogy to PEG and TAG terms, because PEG/PEO motifs can be detected as a tag, i.e. using [antibodies](#).

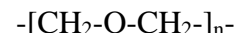
NB: the term PEG is less accurate: a PolyEG motif should be $-[O-CH_2-CH_2-O]_n-$

- Interchim reserves the term ‘**PEG reagents**’ for compounds that have a variety of EG units (x units; **disperse molecules**, the length spanning around a mean value – they are obtaining typically by purification).

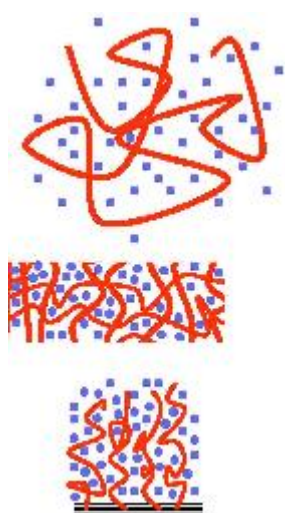


Due to important benefits and rising use in labs, from diagnostics to therapeutics, the term **PEGylation** has been introduced to refer to processes using this important class of reagents to covalently attach or modify surfaces, proteins and other molecule. However, a key difference should then be identified: PEG containing reagents can be made from purified PEG that are usually of polydisperse sizes: available commercially PEG are mixtures of different oligomer sizes in broadly or narrowly defined molecular weight (MW) ranges. For example, "PEG 600" typically includes a mixture of oligomers having an average MW of 600. More critically, "PEG 10000" product will have an average MW of 10 000 g/mol but with a variety of PEG repeats ranging from n = 195 to n=265). Such **polydispersity**, that is even amplified upon further reactions, introduce various behaviors in downstream applications (hydrophilicity, mobility, stability,...). Polydispersity complexifies greatly the interpretation of results in applications such as pharmacology (kinetics and distribution), or bioassays (kinetics and sensitivity). For these applications, full synthetic methods have been developed to produce **monodisperse** PEG/PEO compounds:

- **PEO_x** refers at Interchim more specifically to **monodisperse compounds** (n units; also called **dPEG** for ‘discrete PEG’, at the opposite to PEG reagents). PEO_x compounds have perfectly defined PEO/PEG structure (unique number of ethylene glycol / ethylene oxide units), hence accurate length and expectable conformation. State of art synthesis allows yielding 24 more units pure compounds, and even up to 96 units.



Properties of Polyethylene Oxy / Polyethylene Glycol



Poly(ethylene glycol) unique properties make it unique features (a) free in solution, (b) cross-linked, and (c) grafted to a surfaces, for example, end-tethering. It is especially useful in various biological, chemical and pharmaceutical settings: PEO/PEG technology increases reagent and conjugate solubility, minimize toxic and immunological effects compared to non-PEO/PEG spacers, and provide several options for accommodating specific crosslinking distances.

- **Hydrophilic (aqueous-soluble)** – PEO/PEG inherent hydrophilicity is not only conferred to the reagent, allowing solubility in aqueous buffer (avoiding the use of organic solvents, often hazardous), but also conferred to the modified molecule or surface. As a result, PEO/PEG conjugates have increased solubility and are more bio-stable and bio-compatible: less prone to aggregation, less immunogenic (no antibodies raised again the spacer), more bio-available in organism,...

- **Highly flexible chain** – provides less steric hindrance. As a result, compared with alkyl- and furthermore aryl-spacers, higher kinetics are achieved for the conjugates that should bind with ligand partners in aqueous buffers. PEO/PEG treated surfaces are more available for polar reactions. Background is reduced in detection systems.

• **Non-toxic and non-immunogenic** – PEO/PEG by itself does not interfere with cellular functions or target immunogenicity. This applies to in its original form (excess reagent) or after conjugation (to a surfaces and an other biomolecule).

- **Versatile lengths** – the length of PEO/PEG spacer can be varied precisely from very short to extra-long, PEO reagents that are activated with specific functional groups (reactive groups, bulky groups, labels, ligands...). Such adjustable lengths are useful to fit requirements of many applications, depending on desired characteristics of surfaces, ligands or probes, conjugate MW, hydrophilicity, length... Hydrophilic gels as well can be done with adjusted porosity.

More information: see [NT-PEGYL](#).

Applications of PEO/PEG reagents

PEO reagents that are activated with specific functional groups (reactive groups, bulky groups, labels, ligands...) have found diverse applications, including organic synthesis (Building blocks, Linkers, i.e. for peptide or synthesis), surface modification, microarray, probe preparation (crosslinkers), labeling (Biotin, Fluorescent labels), vaccines, biomedical materials,...

Building blocks with PEO/PEG spacers: PEGylation Reagents for organic chemistry

PEO/PEG containing building blocks are used in organic synthesis, to introduce the great properties of PEO spacer. Interchim provides over 200 PEO/PEG building blocks .

Types of reagents: Functional groups include:

-basic groups such as **NH₂, COOH, CHO, SH, -OH** ...

-blocked groups: **tBoc, tBut, Fmoc**,...

-reactive groups: **epoxide, N3 (Hydrazide), CDI (Carbonyl Imidazol), NCO/ISC (IsoCyanate), Tosyl, NPC, OPSS, Silane, Phosphoramidite**,...

List of reagents:

(see below paragraph 'PEGylation reagents' – classified by reactivity)

PEO_n-Building blocks&Linkers: see FT-[AN1280](#) ()

PEG_x-Building blocks&Linkers: see FT-[DZ3531](#) ()

Example: **Methyl-PEG-Amine** and **Carboxyl-PEG-Amine** are polyethylene glycol compounds of discrete length (n = 4 to 48) that contain methyl-and-amine or carboxyl-and-amine ends. They for organic synthesis are used in for organic synthesis, and other uses (surface chemistry; biomolecule properties modification). See also below the section [•PEGylated Modifiers](#):

Modification of proteins or of their properties: PEGylation Modifiers

PEGylation, the addition of ethylene glycol or ethylene oxide polymers, is a useful method to alter the mass, solubility or other properties of proteins, immunogens, therapeutics, gels, reaction vessels and other materials.

• Amine-reactive PEGylating Reagents:

The simplest method to PEGylate proteins, which are rich in surface primary amines, is to use a PEG compound that contains an **NHS ester group** at one end, such as an other group at the other end:

-the **Methyl-PEO_n-NHS** series (**mPEG**): available in four discrete PEG lengths: n = 4, 8, 12 and 24).

-the **Tri(methyl-PEO_n)-NHS**: a branched form of Methyl(PEG)NHS, containing 3 methyl-PEG₁₂ arms that attached to a PEG₄-NHS Ester stem.

-the **S-acetyl-PEO_n-NHS** series (**SAT(PEG)**): contain the amine-reactive NHS-ester group at one end and a protected sulfhydryl group (S-acetyl) at the other end. Like its non-PEO analog, SATA (product #74235A), the SAT(PEO_x) (products n=4, n=8) allow the conversion of primary amines to sulfhydryl groups by addition of short spacer arms. The reagent is most often used as part of a crosslinking or immobilization strategy.

Methyl-PEO₄-NHS

MS(PEG)₄, Methyl-PEG-Succinimidyl; MW: 333.33; Spacer: 16.4A

BH9061, 100mg

BH9063, 1g

Methyl-PEO₈-NHS

MS(PEG)₈, Methyl-PEG-Succinimidyl; MW: 509.54; Spacer: 30.8A

HH5771, 100mg

HH5773, 1g

Methyl-PEO₁₂-NHS

MS(PEG)₁₂, Methyl-PEG-Succinimidyl; MW: 685.75; Spacer: 44.9A

BH9501, 100mg

BH9503, 1g

Methyl-PEO₂₄-NHS

MS(PEG)₂₄, Methyl-PEG-Succinimidyl; MW: 1214.39; Spacer: 88.2 A

RJ2001, 100mg

RJ2003, 1g

Tri(Methyl-PEO₁₂)₃-PEO₄-NHS

TMS(PEG)₁₂, Tri(Methyl-PEG)-PEG-Succinimidyl; MW: 2420.80; Spacer: 25.5A+5.8A+46.2A

BH9061, 100mg

BH9063, 1g

S-Acetyl-PEO₄-NHS

SAT(PEG)₄, dPEG₈-SATA acid, S-acetyl-PEG₈ acid; MW: 421.46; Spacer: 18.25A

BV2831, 100mg

BV2833, 1g

S-Acetyl-PEO₈-NHS

SAT(PEG)₈, dPEG₈-SATA acid, S-acetyl-PEG₈ acid; MW: 500.60; Spacer: 32.5A

DO2341, 100mg

DO2343, 1g

See also branched PEG reagents, i.e.

(Methyl-PEO₁₂)₃-NHS

RJ1920, 100mg

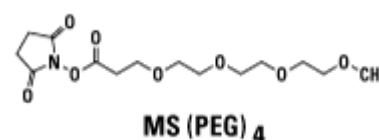
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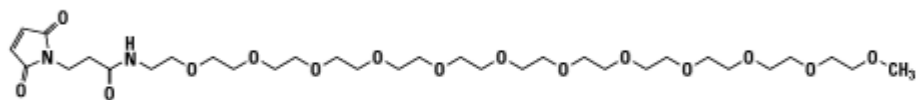
• Sulfhydryl-reactive PEGylating Reagents:

MM(PEG)_n and TMM(PEG)_n are linear and branched reagents for PEGylating sulfhydryl groups. The maleimide moiety at one end reacts to form stable thioether bonds with sulfhydryl groups, grafting an inert methyl group beared at the other end.

Methyl-PEG-Maleimide is available in two PEG lengths (n = 12 and 24).

Tri(methyl-PEG)-Maleimide coins 3 methyl-PEO₁₂ arms that branch from a PEO₄-Maleimide stem.





MM(PEG)₁₂

Methyl-PEO₁₂-PEO₄-Maleimide MM(PEG) ₁₂ , Methyl-PEG-Maleimide; MW: 710.81; Spacer: 51.9A	HH5771, 100mg	HH5773, 1g
Methyl-PEO₂₄-PEO₄-Maleimide MM(PEG) ₂₄ , Methyl-PEG-Maleimide; MW: 1239.44; Spacer: 95.3A	RJ2021, 100mg	RJ2023, 1g
(Methyl-PEO₁₂)₃-PEO₄-Maleimide TMM(PEG) _n , Tri(methyl-PEG)-Maleimide; MW: 2360.756; Spacer 27.6A+5.8A+6.2A	RJ1911, 100mg	RJ1913, 1g

• PEGylating Modifiers:

Methyl-PEGs, X-PEG-Amine and **X-PEG -Carboxyl** are polyethylene glycol compounds of discrete length ($n = 4$ to 48) that contain methyl-, amine or carboxyl- at their ends. While amine or carboxyl functional groups are not spontaneously reactive in usual aqueous conditions, they are easily targeted by various crosslinking and immobilization reagents for construction of peptides, manipulation of surface chemistries and other uses (in organic synthesis). They are so used for coupling while the other group is not reactive (or kept not reactive by conditions of use): Methyl is non-reactive and small, or can be replaced by others (X, including =Amine ou Carboxyl).

• Amine - PEG

Methyl-PEO₂-Amine Methyl-PEO ₄ -Amine	Inquire	
Methyl-PEO₄-Amine MA(PEG) ₄ , Methyl-PEG-Maleimide; MW: 207.27; Spacer: 15.5A	RJ2151, 100mg	RJ2153, 1g
Methyl-PEO₈-Amine MA(PEG) ₈ , Methyl-PEG-Maleimide; MW: 383.48; Spacer: 29.7A	RJ2161, 100mg	RJ2163, 1g
Methyl-PEO₁₂-Amine MA(PEG) ₁₂ , Methyl-PEG-Maleimide; MW: 559.48; Spacer: 43.9A	RJ2171, 100mg	RJ2173, 1g
Methyl-PEO₁₅-Amine MW: 559.69; Spacer: 43.9A	Inquire	
Methyl-PEO₂₄-Amine MA(PEG) ₂₄ , Methyl-PEG-Maleimide; MW: 1088.32; Spacer: 86.1A	RJ2181, 100mg	RJ2183, 1g
Methyl-PEO₃₈-Amine MW: 1616.95; Spacer: 130.0A	Inquire	
Methyl-PEO₄₈-Amine MW: 2310.73; Spacer: 174.0A	Inquire	

• COOH - PEG

Amino-PEO₄-COOH CA(PEG); MW: 265.30; Spacer: 18.0A	AN1280, 100mg	AN1283, 1g
Amino-PEO₄-COOH CA(PEG); MW: 265.30; Spacer: 18.0A	AN1280, 100mg	AN1283, 1g
Amino-PEO₆-COOH MW: 353.41; Spacer: 25.1A	Inquire	
Amino-PEO₈-COOH CA(PEG) ₈ ; MW: 441.51; Spacer: 32.2A	BH9531, 100mg	BH9533, 1g
Amino-PEO₁₂-COOH CA(PEG) ₁₂ ; MW: 617.72; Spacer: 46.5A	BH9551, 100mg	BH9553, 1g
Amino-PEO₁₅-COOH MW: 793.93; Spacer: 60.7A	Inquire	
Amino-PEO₂₀-COOH MW: 970.14; Spacer: 75.2A	Inquire	
Amino-PEO₂₄-COOH CA(PEG) ₂₄ ; MW: 1146.35; Spacer: 89A	RJ2221, 100mg	RJ2223, 1g
Amino-PEO₃₈-COOH MW: 1674.995; Spacer: 132.7A	Inquire	

• other or **Carboxyl-** or **Amine-**containing PEG products are available (spacer variants, other functional or blocking group). Please inquire.

Crosslinkers with PEO/PEG spacers

Many crosslinkers are available from Interchim with a variety of PEO/PEG spacer-arm lengths, solubility and cleaving characteristics to serve the requirement of conjugations or immobilization of biomolecules (proteins, peptides, ligands, hormones,...) but also xenobiotics or matrices (polystyrene, gold surfaces). This includes:

-both discrete-length polyethylene glycol spacers (PEO), up 24 EO units (MW~1200Da)(longer available on custom), and standard PEG spacers, up 30 000 Da MW.

-both homobifunctional (identical reactive groups at either end) and heterobifunctional (different reactive groups at either end) crosslinkers.

• Amine-to-Amine PEO crosslinkers.

NHS-PEO_x-NHS reagents, also called Succinimidyl-PEG-Succinimidyl, BS(PEG)_n, are homobifunctional, amine-to-amine crosslinkers that contain N-hydroxy-succinimide (NHS) esters at both ends (available as PEO₅ and PEO₉).

List of reagents: NHS-PEO_n-NHS: see FT-[54940A](#) (); examples:

NHS-PEO ₅ -NHS	BH8811, 100mg	532.50	21.7 A
NHS-PEO ₉ -NHS	CQ2051, 100mg	708.71	35.8 A

+ see Photoreactive-PEO-crosslinkers; examples: NP-PEO_n-NHS: see FT-[DZ3531](#) ()
+ see also branched PEG reagents, i.e.

(Methyl-PEO ₁₂) ₃ -NHS	RJ1920, 100mg		
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• Sulfhydryl-to-Sulfhydryl PEO crosslinkers.

MAL-PEO_x-MAL reagents, also called Maleimide-PEG-Maleimide, BM(PEG)_n, are homobifunctional, sulfhydryl-reactive crosslinkers that contain the maleimide group at either end (available as PEO₂ and PEO₃).

List of reagents: MAL-PEO_x-MAL:

MAL-PEO_x-MAL: see FT-[DZ3531](#) (); examples:

		MW	spacer length
MAL-PEO ₂ -MAL	L7736A, 100mg	308.29	14.7 A
MAL-PEO ₃ -MAL	L7737A, 100mg	352.34	17.8 A
MAL-sc-PEO ₄ -sc-MAL	AZ4180, 50mg	522.55	30.0 A

• Amine-to-Sulfhydryl PEO crosslinkers.

NHS-PEO_x-MAL reagents, also called Succinimidyl-PEG-Maleimide, SM(PEG)_n, are amine-to-sulfhydryl linkers that contain an NHS ester at one end and a maleimide group at the other; These heterobifunctional crosslinker are analogs of the popular reagent SMCC (Product #34253A/17412A) but with PEO benefits, and adjustable length for 18 to 95 angstroms (n = 2, 4, 6, 8, 12 and 24 EO units)

List of reagents: NHS-PEO_x-MAL: see FT-[AL6580](#) (); examples:

		MW	spacer length
MAL-PEO ₂ -NHS	BZ098A, 100mg	425.39	17.6 A
MAL-PEO ₄ -NHS	AL6580, 100mg	513.5	24.8 A
MAL-PEO ₆ -NHS	RJ2851, 100mg	601.60	32.5 A
MAL-PEO ₈ -NHS	BH9851, 100mg	689.7	39.2 A
MAL-PEO ₁₂ -NHS	BH9861, 100mg	865.9	53.3 A
MAL-PEO ₂₄ -NHS	BM3011, 100mg	1394.5	95.2 A

NHS-PEO_n-MAL: see FT-[DZ3531](#) ()

• Amine-to-Carbonyl PEO crosslinkers, and other reactivities

List of reagents: NHS-PEG_x-MAL: see FT-[DZ3531](#) (); examples:

Includes epoxide, N3 (Hydrazide), CDI (Carbonyl Imidazol), NCO/ISC (IsoCyanate), Tosyl, NPC, OPSS, Silane

• Branched PEG reagents

List of reagents: NHS-PEG_x-MAL: see FT-[DZ3531](#) (); examples:

(Methyl-PEO₁₂)₃-PEO₄-NHS RJ1920, 100mg

Labeling agents with PEO/PEG spacers

Label or tags take benefits from combination to PEO spacers because of their great hydrophilic properties and adjustable length: for example, PEO spacer improves generally the efficiency of fluorochromes, often hydrophobic, reducing their tendency to precipitate and quench their fluorescent. Biotin, a small hydrophilic label, also works better thanks the better flexibility and hydrophilicity of PEO spacers.

PEGylated labeled antibodies, peptides or DNA primers show usually superior efficiency in most of used techniques.

Interchim provides over 100 PEO labeling agents, and you may ask for custom tailored labels or tags.

List of reagents: Inquire/

• Biotinylation Reagents with PEO/PEG spacer

Labeling antibodies and other molecules with biotin is the basis for many assay and purification platforms used in all areas of proteomics and molecular biology research. Our biotinylation reagents have many different target reactivities, spacer arm lengths, and solubility and cleavability characteristics. See below the list of reagents, or browse the [BioSciences catalog](#) or [e-search](#) to search among all crosslinker products.

The wide selection of biotin-labeling reagents include, beside PolyEhyleneGlycol groups (PEG), discrete-length polyethylene glycol groups (PEO_x) as the primary constituent of the spacer arm. These PEG groups increase reagent and conjugate solubility and minimize toxic and immunological effects compared to non-PEG spacers ([see above](#)). The spacer lengths is adjustable, enabling optimization of conjugate function for specific biotin-binding assays.

NHS-PEG₄-Biotin is the PEG equivalent of the popular Sulfo-NHS-LC-Biotin (product #[543898](#)) and related reagents.

Although the PEG analogs do not use the water-soluble Sulfo-NHS form of the amine-reactive group, equivalent reagent water solubility and membrane impermeability are conferred by the hydrophilic polyethylene glycol spacer arm. In addition, experiments have demonstrated that antibodies labeled with PEG-containing biotin tags retain better solubility (less aggregation during long-term storage) than those labeled using non-PEG counterparts.

<u>List of Pegylated Biotin reagents:</u>	Biotin-PEO_x:	amine reactive	See FT- R2027A ():	
NHS-PEO₄-Biotin		UPR2027B, 25mg ; UPR2027A, 50mg ; UPR2027C, 1g		
		R20277, 5mg ; R20276, 8x1mg ; R20278, 10x2mg		
NHS-PEO₁₂-Biotin		BZ0971, 25mg	BZ0972, 500mgA	
	NHS-SS-PEG₄-Biotin (cleavable), +	TFP-PEG₃-Biotin (tetrafluorophenyl)		
NHS-SS-PEO₄-Biotin		CC4431, 50mg	CC4433, 1g	FT-53031A
TFP-PEG₃-Biotin		88511? 50MG		()
	Biotin-PEO_x:	sulfhydryl reactivities	()	
MAL-dpEO₂-Biotin		BT3751, 50mg		
MAL-PEO₂-Biotin		87284A, 50mg	872841, 8x2mg	525.62 29.1A
MAL-PEO₄-Biotin		R20289, 10mg	R2028A, 25mg	R2028B, 50mg
MW: 588.67; Spacer 24.9A (K)				
MAL-PEO₁₁-Biotin		BR4031, 25mg		922.09 59.1A
IodoAcetyl-PEO₂-Biotin		872841, 50mg		
	Biotin-PEO_x:	photo reactivities	()	
Biotin-PEO₄-Hydrazide (carbohydrate reactive)		BJ008A, 50mg	BJ008C, 1	505.63 31.3A
TFPA-PEO₃-Biotin (mon-specific reactivity)		BT3622, 10mg	BT3621, 25mg	663.69 33.4A
MW: 663.6; Spacer 33.4A ; Photoreactive (λmax:320nm) toward any C-H bond				
TFP-PEO₃-Biotin		885111, 50 mg		
MW: 694.74, spacer 32.6A				
	Other-PEO-Biotins			
Psoralen-PEO₃-Biotin (DNA intercalating)		L7784A, 10mg		688.79 36.9A
Biotin-PEO₆-Biotin		Q7467A, 50mg	see FT-Q7467A	
	Biotin-PEG_x-NHS:		see FT-DZ3531 ()	
NHS-PEG-Biotin MW:2000		WT9290, 100mg		
MW:3400		WT9280, 100mg		
MW:5000		IL1871, 100mg		
MW:10000		WT9300, 100mg		
MW:20000		WT9310, 100mg		

Anti PEO/PEG spacer antibodies

Product		Host	Type	Label	Reactivity Assay	Size
Polyethylene Glycol Antibody	LS-C50013	Rabbit	MC		ELISA, IHC, WB	100 µg
Polyethylene Glycol Antibody	LS-C50082	Rabbit	MC	Biotin	ELISA, IHC, WB	100 µg
Polyethylene Glycol Antibody	LS-C131527	Mouse	MC		ELISA	100 µg
Polyethylene Glycol Antibody	LS-C131528	Mouse	MC		ELISA	100 µg
Polyethylene Glycol Antibody	LS-C131529	Mouse	MC	Biotin	ELISA	50 µg
Polyethylene Glycol Antibody	LS-C131530	Mouse	MC	Biotin	ELISA	50 µg

The matched antibody pair set binds to the repeating subunits of the polyethylene glycol polymer and can be employed to detect and quantify PEGylated compounds.

Sandwich ELISA detection sensitivity ranging from 3 µg/ml to 9000 µg/ml.

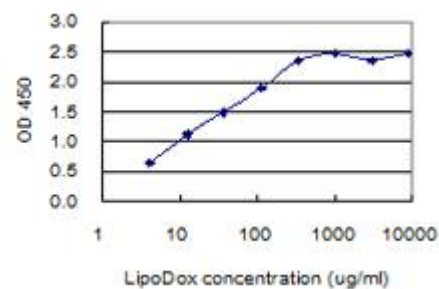
Supplied product: Antibody pair set content:

1. Capture antibody: mouse monoclonal anti-PEG, IgM (100 µg)

Stored in 1xPBS buffer with 0.02% sodium azide.

2. Detection antibody: biotinylated mouse monoclonal anti-PEG, IgG1 (100 µg).

Stored in 1xPBS buffer with 0.02% sodium azide and 50% glycerol.



Standard curve using LipoDox interferon as an analyte.

Related products lines

Interbiotec - BioSciences innovation – proposes a complete range of products for protein biochemistry.

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