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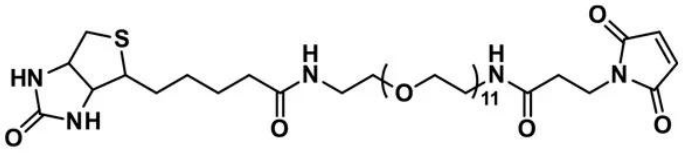
BIOTIN-DPEG®$_{11}$-MAL

SKU: QBD-10195



Biotin-dPEG®11-MAL, product number QBD-10195, is a medium-length, discrete PEG (dPEG®) biotinylation reagent that reacts with free thiols through the maleimido group in the pH range of 6.5 – 7.5, forming a stable thioether linkage.

Description

Biotin-dPEG®11-MAL, product number QBD-10195, is one of three products containing a biotin on one end of a dPEG® linker and a maleimidopropyl moiety on the other end. The maleimide group is a useful, highly popular reactive group for conjugating to free thiol groups in biomolecules. This product provides a short-chain, single molecular weight, discrete PEG (dPEG®) spacer between the biotin and the maleimide. Maleimide groups can be conjugated to free thiol groups in the pH range from 6.5 – 7.5, forming a stable thioether linkage. The dPEG® spacer in this product increases the hydrophilicity of the conjugate.

This product has proven useful in a variety of applications that take advantage of the high streptavidin-biotin binding affinity. Such applications include magnetic bead-based assays, assays to quantitate reducible thiols in proteins, atomic force microscopy, and nanoparticle applications, among others.

To use Biotin-dPEG®11-MAL, the product should be dissolved in dry solvent and then added to an aqueous solution of the compound containing the free thiol. The water-miscible solvent N,N’-dimethylacetamide (DMAC) dried over 3Å molecular sieves is an excellent solvent to use for this purpose. For biomolecules (e.g., antibodies), care should be taken to keep the amount of organic solvent to a minimum so as not to denature the biomolecule or cause salt precipitation.

Specifications

Unit Size	25 mg, 100 mg
Molecular Weight	922.09; single compound

For research use only. Not intended for animal or human therapeutic or diagnostic use.

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Chemical formula	$C_{41}H_{71}N_5O_{16}S$
CAS	1334172-60-9
Purity	> 98%
Spacers	dPEG® Spacer is 43 atoms and 50.5 Å
Shipping	Ambient
Typical solubility properties (for additional information contact Customer Support)	Methylene chloride, DMAC or DMSO.
Storage and handling	-20°C; Always let come to room temperature before opening; be careful to limit exposure to moisture and restore under an inert atmosphere; stock solutions can be prepared with dry solvent and kept for several days (freeze when not in use). dPEG® pegylation compounds are generally hygroscopic and should be treated as such. This will be less noticeable with liquids, but the solids will become tacky and difficult to manipulate, if care is not taken to minimize air exposure.
