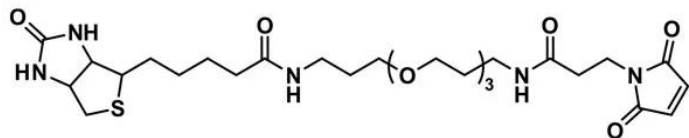


## BIOTIN-DPEG®<sub>3</sub>-MAL

SKU: QBD-10201



Biotin-dPEG®<sub>3</sub>-MAL, product number 10201, consists of biotin on one end of a dPEG®<sub>3</sub> linker with a maleimidopropyl moiety (maleimide ring connected to propionic acid) on the other end. The flexible, short-chain, discrete PEG (dPEG®) linker imparts water solubility to conjugates formed with it. The maleimide group reacts with free thiols to form stable thioether linkages.

### Description

"Biotin-dPEG®<sub>3</sub>-MAL, product number 10201, is one of three products containing biotin on one end of a dPEG® linker and a maleimidopropyl moiety on the other. For QBD-10201, the linker is a dPEG®<sub>3</sub> product. The flexible, short-chain, discrete PEG (dPEG®) linker imparts water solubility to conjugates formed with it. The maleimide moiety is a popular reactive group for conjugating to free thiol groups in biomolecules and other sulfhydryl compounds. Maleimide groups can be conjugated to free thiol groups in the pH range 6.5 – 7.5, forming a stable thioether linkage.

This product has proven helpful in various applications that utilize the high streptavidin-biotin binding affinity. Such applications include

- FRET-based assays
- probes of protein topology
- protein labeling
- the creation of biotinylated, dPEG®-modified nucleosides
- different types of high-throughput screening procedures
- the construction of biomimetic gold-and-silica nanoparticles, and
- the construction of self-assembling quantum dots.

To use Biotin-dPEG®<sub>3</sub>-MAL, dissolve the product in a dry solvent and add it to an aqueous compound containing the free thiol. The water-miscible solvent N,N'-dimethylacetamide (DMAC) dried over 3Å molecular sieves is an excellent solvent for this purpose. For biomolecules (e.g., antibodies), care should be taken to use a minimal amount of organic solvent so as not to denature the biomolecule or cause salt precipitation."

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

## Specifications

<b>Unit Size</b>	50 mg
<b>Molecular Weight</b>	597.73; single compound
<b>Chemical formula</b>	C <sub>27</sub> H <sub>43</sub> N <sub>5</sub> O <sub>8</sub> S
<b>CAS</b>	525573-22-2
<b>Purity</b>	> 98%
<b>Spacers</b>	dPEG® Spacer is 21 atoms and 24.9 Å
<b>Shipping</b>	Ambient
<b>Typical solubility properties (for additional information contact Customer Support)</b>	Methylene chloride, DMAC or DMSO.
<b>Storage and handling</b>	-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.

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