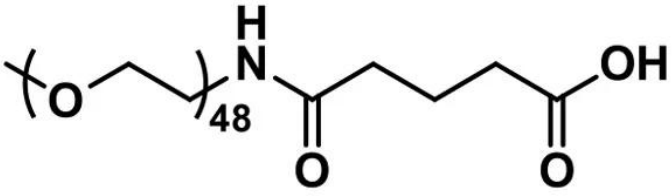
www.vectorlabs.com
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M-DPEG®$_{48}$-CO(CH$_2$)$_3$-ACID

SKU: QBD-10142



DESCRIPTION

m-dPEG®48-CO(CH2)3-acid, product number QBD-10142, is a long, methyl-capped, discrete chain length polyethylene glycol (dPEG®) spacer. The reactive end of the molecule terminates in a propionic acid group. This product is the precursor to QBD-10143, m-dPEG®48-NH-CO(CH2)3CO-TFP ester. Also, m-dPEG®48-CO(CH2)3-acid is part of a broad line of amine-reactive m-dPEG® spacers. The dPEG® spacer lengths range from 2 to 49 ethylene glycol units and have either carboxylic acid or active esters of those acids as functional groups.

The terminal propionic acid moiety can be coupled directly to free amines using EDC or another carbodiimide. Alternatively, converting the reactive end into an active ester permits the conjugation of the transformed product to free amines. N-hydroxysuccinimide (NHS), 2,3,5,6-tetrafluorophenol (TFP), and 2,3,4,5,6-pentafluorophenol (PFP) typically are used for this purpose.

m-dPEG®48-CO(CH2)3-acid reacts with amine-functionalized surfaces (carbon nanotubes, nanoparticles made of silica or various metals, quantum dots, and similar types of products) or free amines on biomolecules. When used to coat surfaces or modify biomolecules, m-dPEG®48-CO(CH2)3-acid reduces or eliminates non-specific binding and increases water solubility. Crucially, the elimination of non-specific binding may increase the signal-to-noise ratio in imaging applications and assays where this is a consideration. Please note that modifying the surface amines of biomolecules with this uncharged, methyl-capped dPEG® spacer may alter the overall charge of the resulting conjugates.

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

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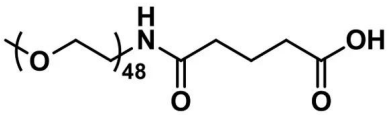
SPECIFICATIONS

CAS Number	N/A
Molecular Weight	2259.70; single compound
Chemical Formula	$C_{102}H_{203}NO_{51}$
Purity	> 95%
Unit Size	100 mg, 1000 mg
Solubility	Methylene chloride, Acetonitrile, DMAC, DMSO or water.
Spacers	dPEG® Spacer is 151 atoms and 178.5 Å
Storage Instructions	-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.
Shipping Instructions	Ambient

DOCUMENTS

- Safety Data Sheet
- Datasheet

GALLERY IMAGES



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