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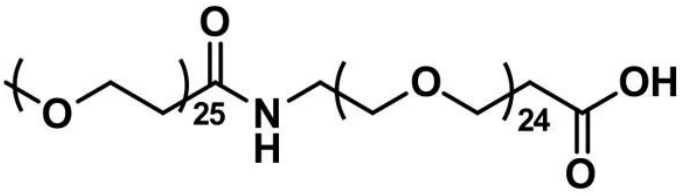
M-DPEG®$_{25}$-AMIDO-DPEG®$_{24}$-ACID

SKU: QBD-11097



m-dPEG®25-amido-dPEG®24-acid, product number QBD-11097, is a long (153 atoms, 179.8 Å), methyl-capped, discrete chain length polyethylene glycol (dPEG®) spacer. The effective length of the dPEG® spacer is about 49 ethylene oxide units (i.e., m-dPEG®49-acid) with an amide bond in the middle of the chain. The reactive end of the molecule terminates in a propionic acid group. 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) are typically used for this purpose.

m-dPEG®25-amido-dPEG®24-acid, QBD-11097, 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®25-amido-dPEG®24-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.

Specifications

Unit Size	100mg, 1000mg
Molecular Weight	2289.71; single compound
Chemical formula	$C_{103}H_{205}NO_{52}$
CAS	N/A
Purity	> 98%
Spacers	dPEG® Spacer is 153 atoms and 179.8 Å

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

Shipping	Ambient
Typical solubility properties (for additional information contact Customer Support)	Water, Methylene Chloride, Methanol, Acetonitrile, Dimethylformamide, or Dimethylacetamide
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.
