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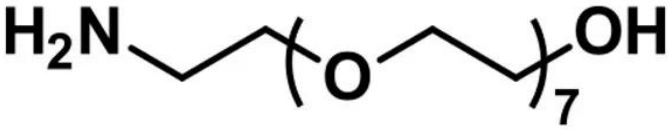
AMINO-DPEG®₈-OH

SKU: QBD-10240



DESCRIPTION

Amino-dPEG®8-OH is a monodisperse PEGylation reagent designed for chemical modification of biomolecules and surfaces. The primary amine on one end of the molecule reacts with carboxylates to form amide bonds and with aldehydes and ketones to form labile Schiff bases. The hydrophilic, non-immunogenic, discrete polyethylene glycol (dPEG®) spacer improves water solubility and increases the hydrodynamic volume of conjugates. The terminal hydroxy group can be modified to add different functional groups.

Amino-dPEG®8-OH has many possible uses. The most common uses are modifying biomolecules and passivating surfaces with an extremely hydrophilic coating. The primary amine on one end of the dPEG® linker reacts with carboxylates, aldehydes, and ketones. Conjugations with this molecule most commonly use the amine-carboxylate reaction because it forms stable amide bonds. A carbodiimide such as EDC directly connects the amino group to a carboxylate. Alternatively, activation of carboxylate as the NHS or TFP ester followed by reaction under slightly basic conditions also permits conjugation of the carboxylate and amino moieties.

The amino group also reacts with aldehydes and ketones to form Schiff bases. Schiff bases are reducible to secondary amines for improved stability.

The published uses of Amino-dPEG®8-OH include the following:
Surface coating of iron oxide nanoparticles;
Surface coating of quantum dots;
Development of a confocal imaging system to measure passive transport across membranes; and,

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Development of a label-free detector of pyrophosphate.

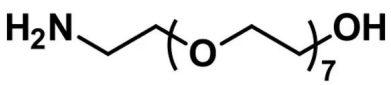
SPECIFICATIONS

CAS Number	352439-37-3
Molecular Weight	369.45; single compound
Chemical Formula	$C_{16}H_{35}NO_8$
Purity	> 98%
Unit Size	100 mg, 1000 mg
Solubility	Methylene chloride, DMAC, DMSO or water.
Spacers	dPEG® Spacer is 28 atoms and 32.1 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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