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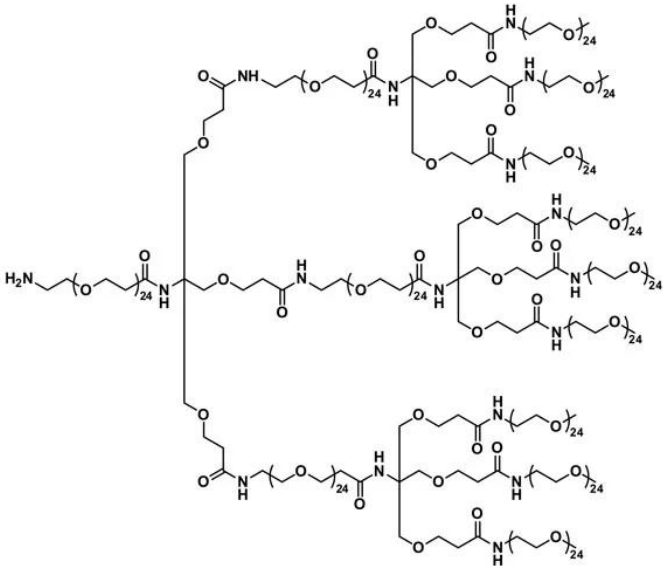
AMINO-DPEG®24-TRIS(-DPEG®24-TRIS(M-DPEG®24)3)3

SKU: QBD-11486



DESCRIPTION

Amino-dPEG®24-Tris(-dPEG®24-Tris(m-dPEG®24)3)3, product number QBD-11486, is a nine-branched, 15.4 kDa, PEGylation reagent built around tris cores from high-purity, single molecular weight, discrete PEG (dPEG®) compounds. The attachment point is a carboxylate-reactive primary amine. Nine uncharged methoxy-terminated dPEG®24 linkers form the branches. The nine branch points arise from four tris cores in a 1:3 arrangement. The average dPEG® spacer length from the primary amine attachment point to the terminal methoxy groups is 241 atoms (155.1 Å). This product is designed for biomolecular conjugation to modulate the pharmacokinetics (PK) and biodistribution (BD) of biomolecules such as antibodies or other proteins. It may also be used to passivate surfaces to prevent non-specific interactions.

PEGylation of biomolecules with Amino-dPEG®24-Tris(-dPEG®24-Tris(m-dPEG®24)3)3 greatly increases a conjugate molecule’s hydrodynamic volume and water solubility and shields the conjugate from opsonization by the immune system. These effects prevent renal clearance of the conjugate by the body and reduce or eliminate opsonization, extending the conjugate’s

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serum half-life. The longer serum half-life can lead to lower dosing requirements for the PEGylated conjugate compared to the non-PEGylated conjugate while maintaining diagnostic or therapeutic efficacy.

Vector Laboratories' dPEG® technology uses high-purity, single molecular-weight PEG linkers and spacers with discrete chain lengths. In contrast, traditional, non-uniform polymer PEG linkers and spacers have an intractable mixture of different chain lengths of PEG, where each length of PEG in the mix has a unique molecular weight. Analyzing dPEG® products and conjugates made with them is far more straightforward than analyzing non-uniform PEG products and their conjugates.

The free primary amine in Amino-dPEG®24-Tris(-dPEG®24-Tris(m-dPEG®24)3)3, product number QBD-11486, provides the sole attachment point for the dPEG® construct to connect with a carboxylate or the active ester (NHS ester, TFP ester) of a carboxylic acid, forming a stable amide bond. The carboxylate or active ester can be on a biomolecule (protein, protein fragment, or peptide) or surface (for example, nanoparticles functionalized with carboxylic acids or their active esters). The amine also reacts with aldehydes, which can be generated on the carbohydrate coats of glycoproteins. The amine and aldehyde reaction forms a labile Schiff base, which readily reduces under mild conditions to create a stable secondary amine. When using Amino-dPEG®24-Tris(-dPEG®24-Tris(m-dPEG®24)3)3 to modify charged biomolecules, users should be aware that the uncharged methyl groups likely will alter the overall charge of the conjugate.

SPECIFICATIONS

CAS Number	N/A
Molecular Weight	15441.49; single compound;
Chemical Formula	$C_{697}H_{1381}N_{17}O_{340}$
Purity	> 95%
Unit Size	25 mg, 100 mg
Solubility	Methylene Chloride, DMAC, DMSO, DMF or Acetonitrile.
Spacers	dPEG® Spacer is 241 atoms and 155.1 Å, avg.

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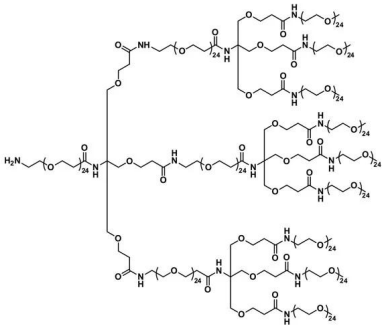
Storage Instructions	-20°C; Always let come to room temperature before opening; be careful to limit exposure to moisture and restore under an inert atmosphere; stock solutions can be prepared with dry solvent and kept for several days (freeze when not in use). dPEG® pegylation compounds are generally 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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