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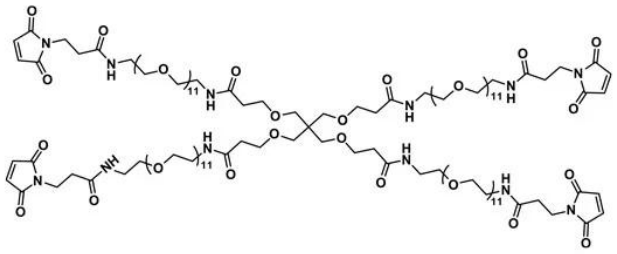
TETRA(-AMIDO-DPEG®$_{11}$-MAL)PENTAERYTHRITOL

SKU: QBD-11435



DESCRIPTION

Tetra(-amido-dPEG®11-MAL)pentaerythritol, product number QBD-11435, is a maleimide-functionalized PEG crosslinking reagent designed to join up to four molecules via a maleimide-thiol reaction. Each of the four arms of this product comes from a single molecular weight, discrete polyethylene glycol (dPEG®) spacer that is 43 atoms (47.4 Å) long, joined through a pentaerythritol core. Product applications include (1) crosslinking of proteins, peptides, or small molecules containing free sulfhydryl groups and (2) dendrimer construction with thiol-functionalized branched compounds.

The thiol-maleimide reaction, also known as the thiol-Michael addition, is a click chemistry reaction. This powerful, highly popular reaction is extensively used in bioconjugation applications. At pH 6.5 – 7.5, the thiol-maleimide reaction is chemoselective. However, above pH 7.5, the maleimide group reacts competitively with amines, so the pH should be kept below this limit.

Unlike traditional polyethylene glycol (PEG), which are non-uniform, dispersed polymers, Vector Laboratories' dPEG® products are single molecular weight PEGs with discrete chain lengths, hence the dPEG® name.

Tetra(-amido-dPEG®11-MAL)pentaerythritol showcases one of the benefits of dPEG® linkers in product development. Each of the four dPEG® arms is identical, and the uniformity simplifies analysis. In contrast, if this product were made using traditional, non-uniform PEG compounds, analyzing it would be much more complicated and challenging.

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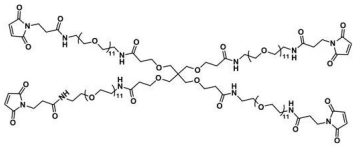
SPECIFICATIONS

CAS Number	2962831-27-0
Molecular Weight	3135.520; single compound
Chemical Formula	$C_{141}H_{248}N_{12}O_{64}$
Purity	> 95%
Unit Size	25 mg, 100 mg
Solubility	Water, Methylene Chloride, Methanol, Acetonitrile, DMF, DMAC, or DMSO.
Spacers	dPEG® Spacer for each arm is 43 atoms and 47.4 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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