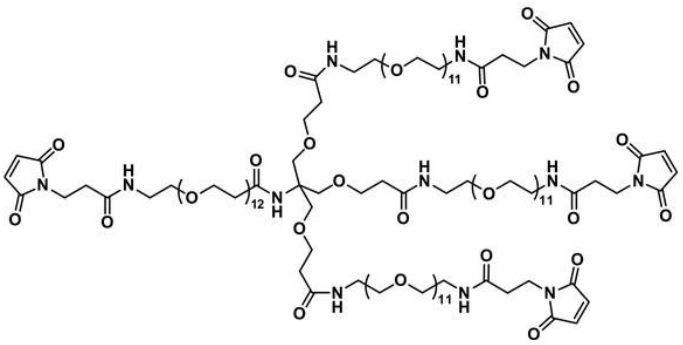
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

MAL-DPEG®$_{12}$-TRIS(-DPEG®$_{11}$-AMIDO-MAL)$_3$

SKU: QBD-11433



DESCRIPTION

MAL-dPEG®12-Tris(-dPEG®11-amido-MAL)3, product number QBD-11433, is a branched, single molecular weight, thiol-reactive, discrete polyethylene glycol (dPEG®) product. It is designed to join up to four molecules via a maleimide-thiol reaction. Built around a tris core and terminated on each arm with a thiol-reactive maleimide group, this homotetrafunctional crosslinker is 96 atoms long (124.4 Å) from one maleimide to another.

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. The four arms of MAL-dPEG®12-Tris(-dPEG®11-amido-MAL)3 are built around a core of tris(hydroxymethyl)aminomethane (""tris""). Although one arm is differently structured than the other three arms (one dPEG®12 arm vs. three dPEG®11 arms), each arm has the same number of atoms and the same length when measured from the reactive site on the maleimide to the tris core from which each arm branches. This precise construction occurs because the dPEG® spacers have discrete chain lengths. This product can link multiple peptides

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or proteins together for drug delivery. It could also be used as a core unit for constructing dendrimers with precisely defined spacer lengths.

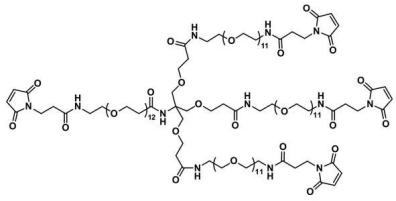
SPECIFICATIONS

CAS Number	N/A
Molecular Weight	3121.49; single compound
Chemical Formula	$C_{140}H_{246}N_{12}O_{64}$
Purity	> 96%
Unit Size	100 mg, 1000 mg
Solubility	Methylene Chloride, DMSO, DMF, Methanol, or Acetonitrile.
Spacers	dPEG® Spacer is 96 atoms and 124.4 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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