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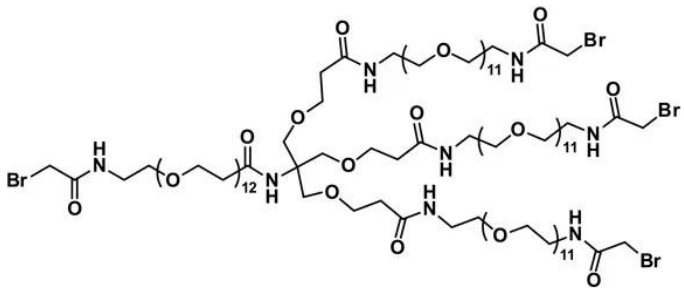
BROMOACETAMIDO-DPEG®$_{12}$-TRIS(-DPEG®$_{11}$-BROMOACETAMIDE)$_3$

SKU: QBD-11434



DESCRIPTION

Bromoacetamido-dPEG®12-Tris(-dPEG®11-amido-bromoacetamide)3, product number QBD-11434, is a branched, single molecular weight, thiol-reactive, discrete polyethylene glycol (dPEG®) product. It is designed to join up to four molecules via a thiol-bromoacetyl reaction. Each of the four arms attaches to a central tris core and terminates with a thiol-reactive bromoacetyl group. The dPEG® spacer length from between the bromoacetyl groups through the tris core is 87 atoms (100.0 Å).

Like the thiol-maleimide reaction, the thiol-bromoacetyl reaction forms stable thioether bonds with free thiols. However, maleimides react optimally at pH 6.5 – 7.5, while bromoacetyl groups react with thiols chemoselectively at pH ≥8.0. Moreover, thioether bonds formed from a thiol-maleimide reaction can sometimes undergo a reverse Michael addition, undoing the thioether bond. This does not happen with thioether bonds formed by a thiol-bromoacetyl reaction. The thiol-bromoacetyl reaction is chemoselective for thiols but slightly less selective than the thiol-maleimide reaction.

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 structured a

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little differently than the other three arms (one dPEG®12 arm vs. three dPEG®11 arms), the product is essentially symmetrical through the tris core. This precise construction of Bromoacetamido-dPEG®12-Tris(-dPEG®11-amido-bromoacetamide)3 is possible because of Vector Laboratories' dPEG® technology. This product can link multiple peptides 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	3000.75; single compound
Chemical Formula	$C_{120}H_{230}Br_4N_8O_{56}$
Purity	> 97%
Unit Size	100 mg, 1000 mg
Solubility	Methylene Chloride, Methanol, Acetonitrile, DMF, or DMSO.
Spacers	dPEG® Spacer is 87 atoms and 100.0 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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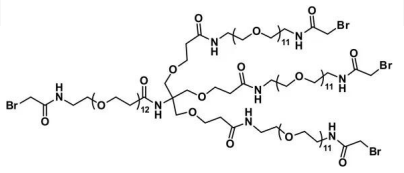

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