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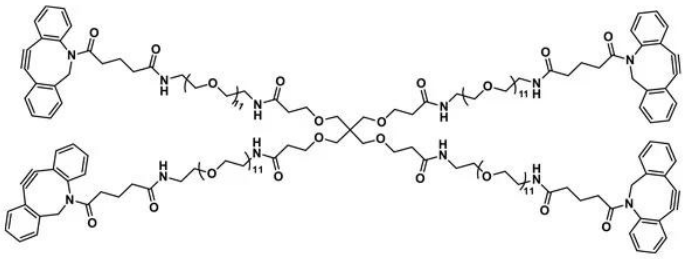
TETRA(-DPEG®$_{11}$-DBCO)PENTAERYTHRITOL

SKU: QBD-11371



Tetra(-dPEG®11-DBCO)pentaerythritol, product number QBD-11371, is a four-armed, discrete polyethylene glycol (dPEG®) crosslinker built around a pentaerythritol core. Each dPEG®11 spacer arm is 43 atoms (47.4 Å) long and terminates with a dibenzocyclooctyne (DBCO) functional group. The DBCO moiety conjugates to an azide-functionalized molecule or surface via strain-promoted azide-alkyne cycloaddition (SPAAC), also known as copper-free click chemistry. This product is useful for supramolecular construction (e.g., dendrimers) and for efficiently crosslinking azide-functionalized proteins or peptides.

This compound showcases the advantages of dPEG® products. Conventional polyethylene glycol (PEG) products are dispersed polymers. These polymers consist of a complex mixture of different chain lengths and molecular weights that make exact analysis and characterization quite challenging.

Vector Laboratories' dPEG® products contain precisely defined, single molecular weight, discrete-length PEG chains (i.e., they are monodispersed PEG products). Tetra(-dPEG®11-DBCO)pentaerythritol would be challenging to characterize if made with conventional PEG reagents because of polymer dispersity. The synthesis of a product like Tetra(-dPEG®11-DBCO)pentaerythritol using standard PEG reagents creates a complicated assortment of different products. However, using dPEG® reagents, this product can be synthesized and characterized accurately.

Specifications

Unit Size	25 mg, 100 mg
Molecular Weight	3736.451; single compound
Chemical formula	$C_{193}H_{228}N_{12}O_{60}$

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CAS	N/A
Purity	> 97%
Spacers	dPEG® Spacer data for each arm is 43 atoms and 47.4 Å
Shipping	Ambient
Typical solubility properties (for additional information contact Customer Support)	Methylene Chloride, Methanol, DMAC, DMF, or DMSO
Storage and handling	-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.
