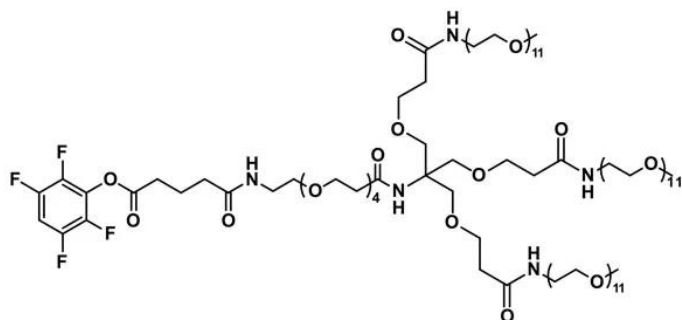




TFP-dPEG®4-(M-dPEG®11)3-ESTER

SKU: QBD-11401



DESCRIPTION

TFP-dPEG®4-(m-dPEG®11)3 ester, product number QBD-11401, is a water-soluble, amine-reactive, discrete PEG (dPEG®) PEGylation reagent built around a tris core and consists of a short (21 atoms) amine-reactive 2,3,5,6-tetrafluorophenyl (TFP) ester “tail” on a uniform (i.e., monodispersed) PEG4 tail and three (3) medium-length (35 atoms) branches composed from methyl-terminated dPEG®11 (m-dPEG®11). The total dPEG® spacer length from the reactive end to the methyl termini is 63 atoms (74.1 Å average). TFP-dPEG®4-(m-dPEG®11)3 ester is used to PEGylate and modify amine-reactive biomolecules and surfaces. This hydrophilic branched dPEG® product greatly increases the conjugates’ hydrodynamic volumes, reducing immunogenicity and renal clearance. Moreover, this product reduces or eliminates non-specific binding to conjugates and surfaces.

TFP esters react with free amines like NHS esters to form stable amide bonds. TFP esters’ optimal reaction pH is 7.5 – 8.0, which is higher than NHS esters (optimal pH range 7.0 – 7.5). However, published research has shown that, within the optimal reaction pH range, TFP esters are more reactive toward amines than NHS esters are within their optimal pH range.

Applications for TFP-dPEG®4-(m-dPEG®11)3 ester, product number QBD-11401, include the following:

- conjugating proteins and other biomolecules to modify PK and BD;
- PEGylating amine-coated surfaces (e.g., nanoparticles) to sterically shield the surfaces and reduce non-specific, hydrophobic interactions;

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PEGylating amine-coated organic or inorganic surfaces (e.g., carbon, gold, silver nanoparticles) to reduce or eliminate immunogenicity;
PEGylating biomolecules to reduce renal clearance and increase serum half-life; and
PEGylating biomolecules to reduce immunogenicity and increase water solubility.

SPECIFICATIONS

CAS Number	N/A
Molecular Weight	2339.63; single compound
Chemical Formula	C ₁₀₄ H ₁₉₁ F ₄ N ₅ O ₄₇
Purity	> 96%
Unit Size	100 mg, 1000 mg
Solubility	Methylene chloride, Acetonitrile, DMAC or DMSO.
Spacers	dPEG® Spacer is 63 atoms and 74.1 Å, avg.
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

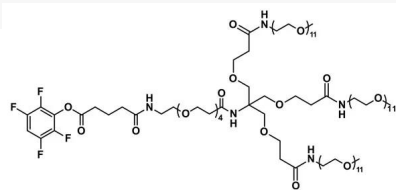
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[TFP-dPEG[®]₄-\(m-dPEG[®]₁₁\)₃-ester](https://vectorlabs.com/products/tfp-dpeg4-m-dpeg113-ester/)

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