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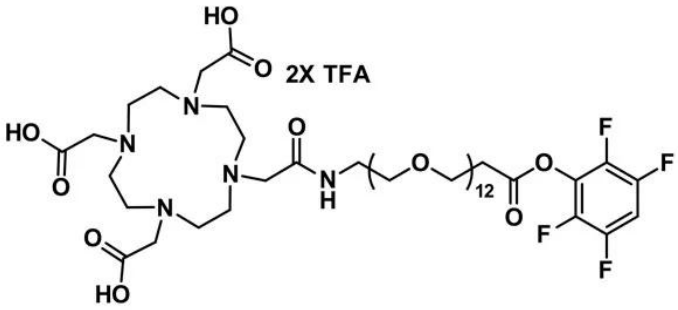
DOTA-TRIS(ACID)-AMIDO-DPEG®$_{12}$-TFP ESTER

SKU: QBD-11162



DOTA-tris(acid)-amido-dPEG®12-TFP ester, product number QBD-11162, contains a DOTA-tris(acid) group conjugated to a medium-length (40 atoms, 46.3 Å), discrete polyethylene glycol (dPEG®) spacer and functionalized with 2,3,5,6-tetrafluorophenyl (TFP) ester. The TFP ester reacts specifically and efficiently with amines at an optimal pH range of 7.5 - 8.0. The macrocycle 1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid (DOTA) is a popular, effective bifunctional chelator of trivalent lanthanide and yttrium radioisotopes. It is used in radiopharmacy for imaging, diagnostic, and therapeutic applications.

The medium-length, amphiphilic, flexible dPEG® linker between the DOTA and the TFP ester moieties increases the hydrodynamic volume and water solubility of conjugate molecules. The increased hydrodynamic volume can reduce a conjugate molecule's renal clearance, thereby increasing serum half-life and reducing the dosage of the conjugate required for efficacy. Moreover, dPEG® is non-immunogenic, and the increased hydrodynamic volume helps reduce the immunogenicity of conjugated molecules.

Specifications

Unit Size	100 mg
Molecular Weight	1380.229; single compound
Chemical formula	$C_{49}H_{81}F_4N_5O_{21}$
CAS	N/A
Purity	> 95%
Spacers	dPEG® Spacer is 40 atoms and 46.3 Å
Shipping	Ambient

For research use only. Not intended for animal or human therapeutic or diagnostic use.

Typical solubility properties (for additional information contact Customer Support)	Methylene Chloride, Acetonitrile, Dimethylformamide, Dimethylacetamide, or Water
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.
