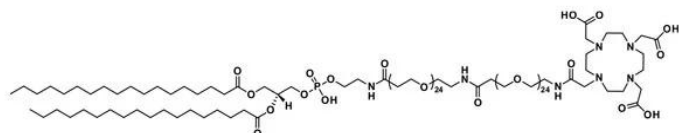


DOTA-TRIS(ACID)-AMIDO-DPEG®₂₄-AMIDO-DPEG®₂₄-DSPE

SKU: QBD-11384



DOTA-tris(acid)-amido-dPEG®₂₄-amido-dPEG®₂₄-DSPE, product number QBD-11384, is designed for incorporation of lanthanide radionuclides into liposomes or micelles for transport and delivery in radiopharmaceutical applications such as radioimaging and radiotherapeutics. The molecule consists of the macrocycle 1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid (DOTA) coupled to a long (152 atoms, 180.0 Å) single molecular weight, discrete polyethylene glycol (dPEG®) spacer and terminated with 1,2-Distearoyl-sn-glycero-3-phosphoethanolamine (DSPE). The dPEG® spacer consists of two dPEG®₂₄ linkers joined by an amide bond with the functional groups at either end. Effectively, this is a dPEG®₄₈ spacer with a molecular weight slightly more than 2000 Daltons (PEG2000).

DOTA, a highly popular bifunctional chelator, forms thermodynamically stable, kinetically inert complexes with Ln(III) ions, such as yttrium. Thus, DOTA has become the preferred ligand for targeted radiopharmaceutical applications that use lanthanide isotopes. QBD-11384 can be used in liposomes or micelles to deliver metal radioisotopes to targets of interest in vitro or in vivo for imaging or therapeutic applications. The dPEG® surface coating will reduce or eliminate opsonization. Consequently, more liposomes or micelles will reach the target, leading to higher effectiveness and lower dosing requirements.

Specifications

Unit Size	25 mg, 100 mg
Molecular Weight	3391.14; single compound
Chemical formula	C ₁₅₉ H ₃₁₀ N ₇ O ₆₅ P
CAS	N/A
Purity	> 95%
Spacers	dPEG® Spacer is 152 atoms and 180.0 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, Methanol, Acetonitrile, DMSO, or
Chloroform

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.

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