

Product Information

Amine/*t*-Butyl ester PEG reagent, *N*-(*t*-butyl ester-PEG6)-*N*-bis(PEG6-amine), Purity 98%

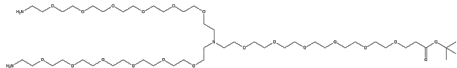
Cat. No.: X24-03-YW0265

Size: 100 mg; 250 mg; 500 mg; 1 g

PubChem CID: 167312775

Synonym: BP-29553; *N*-(*t*-butyl ester-PEG6)-*N*-bis(PEG6-amine)

This product is for research use only and is not intended for diagnostic use.



Product Information	
Description	<i>N</i> -(<i>t</i> -butyl ester-PEG6)- <i>N</i> -bis(PEG6-amine) is a bifunctional PEG reagent featuring a central <i>t</i> -butyl ester group flanked by two PEG chains, each terminated with amine (NH ₂) functional groups. The <i>t</i> -butyl ester serves as a protected carboxyl moiety, offering stability during synthesis and storage, while the amino groups provide sites for bioconjugation. The hydrophilic PEG spacers enhance the water solubility of the compound, facilitating its handling and application in aqueous media.
Molecular Weight	1,024.3
Molecular Formula	C ₄₇ H ₉₇ N ₃ O ₂₀
Functional Group 1	Amine
Functional Group 2	<i>t</i> -Butyl ester
Functional Group 3	None
Reactive Group 1	Carboxylic acid
Reactive Group 2	NHS
IUPAC Name	<i>Tert</i> -butyl 3-[2-[2-[2-[2-[2-[bis[2-[2-[2-[2-[2-(2-aminoethoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]amino]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]propanoate
InChI	InChI=1S/C47H97N3O20/c1-47(2,3)70-46(51)4-10-52-16-22-58-28-34-64-40-43-67-37-31-61-25-19-55-13-7-50(8-14-56-20-26-62-32-38-68-44-41-65-35-29-59-23-17-53-11-5-48)9-15-57-21-27-63-33-39-69-45-42-66-36-30-60-24-18-54-12-6-49/h4-45,48-49H2,1-3H3
InChI Key	DWWHCAVTVPHBPL-UHFFFAOYSA-N
Canonical SMILES	CC(C)(C)OC(=O)CCOCCOCCOCCOCCOCCOCCN(CCOCCOCCOCCOCCOCCOCCN)CCOCCOCCOCCOCCOCCN
Form	Reported
Purity	98%
Identity	Confirmed by NMR.

Applications	<i>N</i>-(<i>t</i>-butyl ester-PEG6)-<i>N</i>-bis(PEG6-amine) can be used in bioconjugation, surface modification, and drug delivery applications. The amino groups enable the covalent attachment of various biomolecules, drugs, or nanoparticles <i>via</i>- amide bond formation, allowing for the synthesis of biofunctionalized materials with tailored properties. Additionally, the presence of the <i>t</i>-butyl ester moiety offers versatility in reaction conditions, allowing for controlled deprotection under mild acidic conditions, thereby facilitating precise control over the conjugation process.
Storage	Store at -20°C