Product Information

Amine PEG reagent, 2-Amino-1,3-bis(*tert*-butyldimethylsilanoxy)propane, Purity 96%

Cat. No.: X24-03-YW0268 Size: 250 mg; 1 g; 5 g CAS Number: 188538-25-2 PubChem CID: 11290148 Synonym: 188538-25-2; 2,2,3,3,9,9,10,10-Octamethyl-4,8-dioxa-3,9-disilaundecan-6-amine; 1,3-Bis[[*Tert*-butyl(dimethyl)silyl]oxy]propan-2-amine; 4,8-Dioxa-3,9-disilaundecan-6-amine, 2,2,3,3,9,9,10,10-octamethyl-; SCHEMBL1369530 This product is for research use only and is not intended for diagnostic use.

Product Information

Description	2-Amino-1,3-bis(tert-butyldimethylsilanoxy)propane is a compound featuring a tert-butyldimethylsilyl (TBDMS) protecting group, known for its acid-labile nature. TBDMS groups are commonly utilized for the protection of alcohol functionalities in organic synthesis. In this molecule, the primary amine remains unmasked and reactive, while the TBDMS group serves to shield alcohol groups from undesired reactions or modifications. This protective group can be selectively removed under mild acidic conditions, allowing for the liberation of the alcohol functionalities when desired.
Molecular Weight	319.6
Molecular Formula	C ₁₅ H ₃₇ NO ₂ Si ₂
Functional Group 1	Amine
Functional Group 2	None
Functional Group 3	None
Reactive Group 1	Carboxylic acid
Reactive Group 2	Carbonyls
Reactive Group 3	NHS
IUPAC Name	1,3-Bis[[<i>Tert</i> -butyl(dimethyl)silyl]oxy]propan-2-amine
InChi	InChI=1S/C15H37NO2Si2/c1-14(2,3)19(7,8)17-11-13(16)12-18-20(9,10)15(4,5)6/h13H,11-12,16H2, 1-10H3



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Storage	Store at -20°C
	during multi-step synthetic routes, preventing unwanted reactions or side reactions at these sites. Upon completion of the desired synthetic transformations, the TBDMS groups can be selectively cleaved under mild acidic conditions, releasing the free hydroxyl groups for subsequent derivatization or further chemical manipulation. The unmasked primary amine functionality enables diverse synthetic applications, including the formation of amide bonds with carboxylic acids, amidation reactions with activated NHS esters, and condensation reactions with other carbonyl compounds.
Applications	2-Amino-1,3-bis(tert-butyldimethylsilanoxy)propane can be used in organic synthesis and chemical modification strategies. Chemists often employ TBDMS groups to shield alcohol functionalities
Identity	Confirmed by NMR.
Solubility	DMSO, DCM, DMF
Purity	96%
Form	Liquid
Canonical SMILES	CC(C)(C)[Si](C)(C)OCC(CO[Si](C)(C)C(C)(C)C)N
InChI Key	QBHFDKYSMRPDAY-UHFFFAOYSA-N