

Product Information

Biotin/DBCO PEG reagent, DBCO-PEG4-biotin, Purity 95%

Cat. No.: X24-03-YW0359

Size: 5 mg; 10 mg; 25 mg; 100 mg

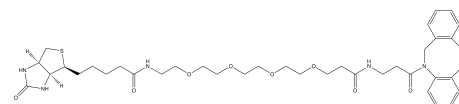
CAS Number: 1255942-07-4

PubChem CID: 91757917

Synonym: 1255942-07-4; DBCO-PEG4-Biotin; ADIBO-NH-PEG2-Biotin; DBCO-NH-

PEG4-Biotin

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



Product Information

Description	DBCO-PEG4-biotin is a reagent grade biotinylation reagent designed for copper-free click chemistry with azide molecules, forming stable triazole linkages. The PEG4 spacer enhances the aqueous solubility of molecules conjugated to the biotin compound.
Molecular Weight	749.9
Molecular Formula	C ₃₉ H ₅₁ N ₅ O ₈ S
Functional Group 1	Biotin
Functional Group 2	DBCO
Functional Group 3	None
Reactive Group 1	Azide
IUPAC Name	5-[(3aS,4S,6aR)-2-oxo-1,3,3a,4,6,6a-Hexahydrothieno[3,4-d]imidazol-4-yl]-N-[2-[2-[2-[2-[3-[[3-(2-azatricyclo[10.4.0.0 ^{4,9}]hexadeca-1(16),4,6,8,12,14-hexaen-10-yn-2-yl)-3-oxopropyl]amino]-3-oxopropoxy]ethoxy]ethoxy]ethoxy]ethyl]pentanamide
InChI	InChI=1S/C39H51N5O8S/c45-35(12-6-5-11-34-38-32(28-53-34)42-39(48)43-38)41-18-20-50-22-24-52-26-25-51-23-21-49-19-16-36(46)40-17-15-37(47)44-27-31-9-2-1-7-29(31)13-14-30-8-3-4-10-33(30)44/h1-4,7-10,32,34,38H,5-6,11-12,15-28H2,(H,40,46)(H,41,45)(H2,42,43,48)/t32-,34-,38-/m0/s1
InChI Key	LNHSQAOQVNHUGL-QRBHCBQLSA-N
Canonical SMILES	C1C2C(C(S1)CCCC(=O)NCCOCCOCCOCCOCC(=O)NCCC(=O)N3CC4=CC=CC=C4C#CC5=C C=CC=C53)NC(=O)N2
Isomeric SMILES	C1[C@H]2[C@@H]([C@@H](S1)CCCC(=O)NCCOCCOCCOCCOCC(=O)NCCC(=O)N3CC4=C C=CC=C4C#CC5=CC=CC=C53)NC(=O)N2

Form	Solid/liquid (low melting point)
Purity	95%
Solubility	Water, DMSO, DMF, DCM
Identity	Confirmed by NMR.
Applications	DBCO-PEG4-biotin is used in bioconjugation and molecular biology research, enabling efficient copper-free click chemistry reactions with azides. Its PEG4 spacer improves solubility, making it ideal for labeling and studying biomolecular interactions and enhancing detection in various assay systems.
Storage	Store at -20°C.