

Product Information

DBCO/Maleimide PEG reagent, DBCO-PEG6-Maleimide, Purity 95%

Cat. No.: X24-03-YW0319

Size: 25 mg; 50 mg; 100 mg; 250 mg

PubChem CID: 118988589

Synonym: DBCO-NHCO-PEG6-maleimide; DBCO-NH-PEG6-Maleimide; DBCO-PEG6-Maleimide; DBCO-NH-PEG6-Mal; AKOS040743179

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



Product Information

Description	DBCO-PEG6-Maleimide is a PEG linker featuring a DBCO moiety and a terminal primary maleimide group. This bifunctional reagent serves as a versatile tool for bioconjugation chemistry, facilitating the conjugation of biomolecules with thiol-containing compounds. The maleimide group readily reacts with thiol groups to form stable covalent bonds, enabling the site-specific modification of biomolecules with various functionalities.
Molecular Weight	762.9
Molecular Formula	C ₄₀ H ₅₀ N ₄ O ₁₁
Functional Group 1	DBCO
Functional Group 2	Maleimide
Functional Group 3	None
Reactive Group 1	Thiol
IUPAC Name	<i>N</i> -[2-[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]ethoxy]ethyl]-3-(2,5-dioxopyrrol-1-yl)propanamide
InChI	InChI=1S/C40H50N4O11/c45-36(14-18-43-38(47)11-12-39(43)48)42-17-20-51-22-24-53-26-28-55-30-29-54-27-25-52-23-21-50-19-15-37(46)41-16-13-40(49)44-31-34-7-2-1-5-32(34)9-10-33-6-3-4-8-35(33)44/h1-8,11-12H,13-31H2,(H,41,46)(H,42,45)
InChI Key	ZIPCYZHODWUAOF-UHFFFAOYSA-N
Canonical SMILES	<chem>C1C2=CC=CC=C2C#CC3=CC=CC=C3N1C(=O)CCNC(=O)CCOCCOCCOCCOCCOCCOCCOCCNC(=O)CCN4C(=O)C=CC4=O</chem>
Form	Liquid
Purity	95%
Solubility	DMSO, DCM, DMF

Identity	Confirmed by NMR.
Applications	DBCO-PEG6-Maleimide finds widespread application in bioconjugation studies, particularly in the field of protein labeling and modification. By reacting with thiol groups on proteins, peptides, or other biomolecules, the maleimide functionality allows for the introduction of DBCO moieties onto specific sites of interest. This enables subsequent conjugation reactions with azide-functionalized molecules <i>via</i> copper-free Click Chemistry, providing a bioorthogonal and chemoselective approach for biomolecule functionalization.
Storage	Store at -20°C