

Product Information

Biotin PEG reagent, PC DBCO-PEG3-biotin, Purity 95%

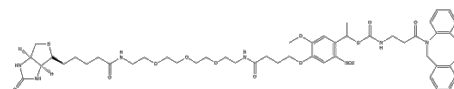
Cat. No.: X24-03-YW0291

Size: 5 mg; 10 mg; 25 mg

PubChem CID: 91757785

Synonym: PC DBCO-PEG3-Biotin; PC-DBCO-PEG3-biotin; BP-22675

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



Product Information

Description	PC DBCO-PEG3-biotin is a versatile reagent designed for the specific conjugation of biotin to azide-containing biomolecules <i>via</i> copper-free Click Chemistry. The hydrophilic PEG spacer enhances solubility and flexibility, facilitating efficient labeling of biomolecules in aqueous environments.
Molecular Weight	1,002.2
Molecular Formula	C ₅₀ H ₆₃ N ₇ O ₁₃ S
Functional Group 1	Biotin
Functional Group 2	None
Functional Group 3	None
IUPAC Name	1-[4-[4-[2-[2-[2-[2-[5-[(3 <i>a</i> S,4 <i>S</i> ,6 <i>a</i> R)-2-oxo-1,3,3 <i>a</i> ,4,6,6 <i>a</i> -Hexahydrothieno[3,4- <i>d</i>]imidazol-4-yl]pentanoylamino]ethoxy]ethoxy]ethoxy]ethylamino]-4-oxobutoxy]-5-methoxy-2-nitrophenyl]ethyl N-[3-(2-azatricyclo[10.4.0.0 ^{4,9}]hexadeca-1(16),4,6,8,12,14-hexaen-10-yn-2-yl)-3-oxopropyl]carbamate
InChI	InChI=1S/C50H63N7O13S/c1-34(70-50(62)53-20-19-47(60)56-32-37-12-4-3-10-35(37)17-18-36-11-5-6-13-40(36)56)38-30-42(65-2)43(31-41(38)57(63)64)69-23-9-16-46(59)52-22-25-67-27-29-68-28-26-66-24-21-51-45(58)15-8-7-14-44-48-39(33-71-44)54-49(61)55-48/h3-6,10-13,30-31,34,39,44,48H,7-9,14-16,19-29,32-33H2,1-2H3,(H,51,58)(H,52,59)(H,53,62)(H2,54,55,61)/t34?,39-,44-,48-/m0/s1
InChI Key	QHTIWGZNJOYQBJ-NFDITWSSSA-N
Canonical SMILES	CC(C1=CC(=C(C=C1[N+](=O)[O-])OCCCC(=O)NCCOCCOCCOCCNC(=O)CCCCC2C3C(CS2)NC(=O)N3)OC(=O)NCCCC(=O)N4CC5=CC=CC=C5C#CC6=CC=CC=C64
Isomeric SMILES	CC(C1=CC(=C(C=C1[N+](=O)[O-])OCCCC(=O)NCCOCCOCCOCCNC(=O)CCCC[C@H]2[C@@H]3[C@H](CS2)NC(=O)N3)OC(=O)NCCCC(=O)N4CC5=CC=CC=C5C#CC6=CC=CC=C64
Form	Solid
Purity	95%
Identity	Confirmed by NMR.

Applications	PC DBCO-PEG3-biotin can be used in bioconjugation studies and applications such as affinity purification, protein labeling, and biomolecule immobilization. The conjugated biotin moiety enables selective detection and capture of labeled biomolecules using streptavidin or avidin-based assays. Furthermore, the photolabile linker allows for precise control over the release of captured biomolecules under near-UV light irradiation, offering flexibility in experimental design and downstream applications.
Storage	Store at -20°C