

Product Information

DBCO/STP PEG reagent, DBCO STP ester, Purity 95%

Cat. No.: X24-03-YW0311

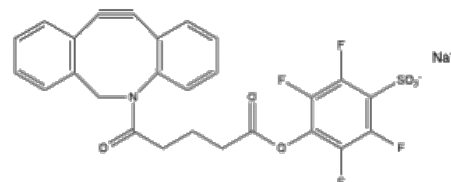
Size: 10 mg; 25 mg; 50 mg; 100 mg

CAS Number: 2268816-75-5

PubChem CID: 164577358

Synonym: 2268816-75-5; DBCO-STP ester

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



Product Information

Description	DBCO STP ester is a versatile water-soluble reagent featuring a terminal DBCO group and a STP ester group. This compound is specifically designed for the modification of peptides, antibodies, proteins, and other molecules containing amino groups. The STP esters offer a superior alternative to conventional <i>N</i> -hydroxysuccinimide (NHS) esters for coupling reactions in aqueous environments. Meanwhile, the DBCO group is widely recognized for its utility in copper-free Click Chemistry reactions, owing to its strain-promoted high energy.
Molecular Weight	546.5
Molecular Formula	C ₂₆ H ₁₆ F ₄ NO ₆ S
Functional Group 1	DBCO
Functional Group 2	STP
Functional Group 3	None
Reactive Group 1	NHS
IUPAC Name	Sodium;4-[6-(2-Azatricyclo[10.4.0.0 ^{4,9}]hexadeca-1(16),4,6,8,12,14-hexaen-10-yn-2-yl)-6-oxohexanoyl]oxy-2,3,5,6-tetrafluorobenzenesulfonate
InChI	InChI=1S/C27H19F4NO6S.Na/c28-22-24(30)27(39(35,36)37)25(31)23(29)26(22)38-21(34)12-6-5-11-20(33)32-15-18-9-2-1-7-16(18)13-14-17-8-3-4-10-19(17)32;/h1-4,7-10H,5-6,11-12,15H2,(H,35,36,37);/q;+1/p-1
InChI Key	ZBRZLKRKJIBISC-UHFFFAOYSA-M
Canonical SMILES	C1C2=CC=CC=C2C#CC3=CC=CC=C3N1C(=O)CCCCC(=O)OC4=C(C(=C(C(=C4F)F)S(=O)(=O)[O-])F)F.[Na+]
Form	Solid
Purity	95%

Solubility	Water, DCM, DMF, DMSO
Identity	Confirmed by NMR.
Applications	DBCO STP ester can be used as a valuable tool in bioconjugation and chemical biology studies, facilitating the site-specific labeling and functionalization of biomolecules. Its compatibility with aqueous environments makes it particularly suitable for applications involving peptides, proteins, and antibodies, where maintaining their native conformation and activity is crucial. The STP ester functionality enables efficient coupling reactions under mild conditions, ensuring minimal perturbation to delicate biological systems.
Storage	Store at -20°C