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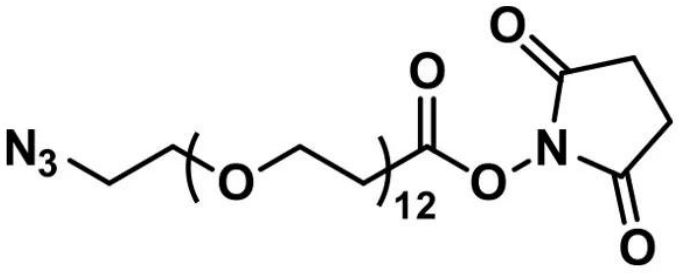
AZIDO-DPEG®$_{12}$-NHS ESTER

SKU: QBD-10505



Azido-dPEG®12-NHS ester, product number QBD-10505, contains an azide group linked to an N-hydroxysuccinimidyl (NHS) ester through a single molecular weight, discrete polyethylene glycol (dPEG®) spacer. This product works with copper(I)-catalyzed, ruthenium-catalyzed, and with copper-free (e.g., strain-promoted) click chemistry. The dPEG® spacer imparts water solubility and adds hydrodynamic volume to the conjugated product. The single molecular weight product design, with its discrete chain length, simplifies the analysis of this product.

NHS esters are the most popular, most widely used way to conjugate carboxylic acids to primary or secondary amines resulting in stable amide bonds. NHS esters react quickly and efficiently in aqueous media at physiological pH values (7.0 – 7.5). However, they are prone to hydrolysis over time. Moreover, the rate of hydrolysis is pH-dependent. Consequently, they must be used immediately upon dissolution in water or aqueous buffer. Published research has shown that 2,3,5,6-tetrafluorophenyl (TFP) esters are more hydrolytically stable and have better reactivity than NHS esters.

Specifications

Unit Size	100 mg, 1000 mg
Molecular Weight	740.79; single compound
Chemical formula	$C_{31}H_{56}N_4O_{16}$
CAS	1108750-59-9
Purity	> 98%
Spacers	dPEG® Spacer is 40 atoms and 47.2 Å
Shipping	Ambient

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

Typical solubility properties (for additional information contact Customer Support)	Methylene chloride, Acetonitrile, DMAC, or DMSO.
Storage and handling	-20°C; Always let come to room temperature before opening; be careful to limit exposure to moisture and restore under an inert atmosphere; stock solutions can be prepared with dry solvent and kept for several days (freeze when not in use). dPEG® pegylation compounds are generally hygroscopic and should be treated as such. This will be less noticeable with liquids, but the solids will become tacky and difficult to manipulate, if care is not taken to minimize air exposure.
