

## SPDP-DPEG®24-NHS ESTER

**SKU:** QBD-10379

SPDP-dPEG®24-NHS ester, product number QBD-10379, is a long (80 atoms), hydrophilic, non-immunogenic, heterobifunctional crosslinker that has the same functionality as the widely popular, but unfortunately hydrophobic, SPDP crosslinker. It contains an amine-reactive N-hydroxysuccinimidyl (NHS) ester on one end of the dPEG®24 linker and a thiol-reactive SPDP (also known as OPSS) reactive group on the other end. The longer spacer arm may facilitate the reaction of the SPDP end of the molecule with buried thiol groups. Moreover, unlike the traditional SPDP crosslinkers, the over-conjugation of proteins or peptides with QBD-10379 will not cause the precipitation of conjugates due to excessive hydrophobicity.

Among the most popular heterobifunctional crosslinking reagents used in bioconjugate chemistry are those compounds that conjugate molecules containing free amine groups with molecules that contain sulfhydryl groups. SPDP (N-succinimidyl 3-(2-pyridyldithio)-propionate) is one of the most popular versions of this type of crosslinker. Unfortunately, SPDP and its popular varieties (LC-SPDP and Sulfo-LC-SPDP) are hydrophobic molecules. When conjugated to biomolecules, care must be taken not to modify the target molecules too much, because this can precipitate the conjugate products.

By contrast, SPDP-dPEG®24-NHS ester, product number QBD-10379, is used like SPDP and its related hydrophobic products. However, precautions against overly modifying the target molecule are not necessary. The water-soluble dPEG® product will not cause the resulting conjugates to precipitate due to excessive hydrophobicity.

## **Specifications**

Unit Size 100 mg, 1000 mg

Molecular Weight 1440.70; single compound

**Chemical formula** C<sub>63</sub>H<sub>113</sub>N<sub>3</sub>O<sub>29</sub>S<sub>2</sub> **CAS** 924280-65-9

For research use only. Not intended for animal or human therapeutic or diagnostic use.





> 97% **Purity** 

**Spacers** dPEG® Spacer is 80 atoms and 97.3 Å

Shipping Ambient

Typical solubility properties (for

**contact Customer** Support)

additional information 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.

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