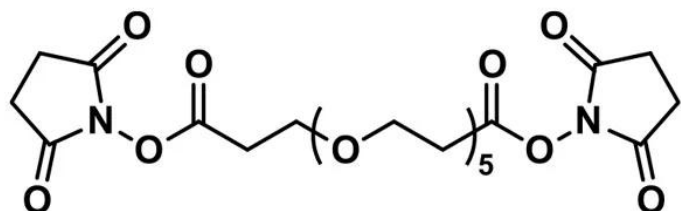


## BIS-DPEG®<sub>5</sub>-NHS ESTER

**SKU:** QBD-10224



Bis-dPEG®<sub>5</sub>-NHS ester, product number QBD-10224, is a homobifunctional, amine-reactive, single molecular weight PEG crosslinker with a short, discrete PEG (dPEG®) chain length. Each end of the chain terminates as the N-hydroxysuccinimidyl (NHS) ester of propionic acid. Unlike traditional hydrophobic crosslinkers, Bis-dPEG®<sub>5</sub>-NHS ester will not cause problems such as aggregation, precipitation, and inactivation when conjugated to biomolecules. Various uses for Bis-dPEG®<sub>5</sub>-NHS ester have been published in the scientific literature.

NHS esters react with free amines such as the ε-amines of lysine. The optimal pH range for NHS esters to react with free amines is 7.0 – 7.5. However, NHS esters can react with free amines with pH as low as 6.5. NHS esters are susceptible to hydrolysis in aqueous media. As the pH increases, the hydrolysis rate of the ester increases. Thus, we strongly discourage storing Bis-dPEG®<sub>5</sub>-NHS ester in water or aqueous buffer. Instead, we recommend that customers make new solutions of the product as needed, use them immediately, and discard unused solutions after use. If customers desire to store the product in solution, we recommend the use of a pure, anhydrous, water-miscible solvent such as dimethyl sulfoxide (DMSO), N,N-dimethylacetamide (DMAC), or N,N-dimethylformamide (DMF). DMSO, DMAC, or DMF can be dried chemically or by storing for a minimum of 24 hours over 3 Å molecular sieves. With DMF, use only fresh solvent as the compound decomposes over time to form free amines that will react with the NHS esters.

### Specifications

<b>Unit Size</b>	100 mg, 1000 mg
<b>Molecular Weight</b>	532.50; single compound
<b>Chemical formula</b>	C <sub>22</sub> H <sub>32</sub> N <sub>2</sub> O <sub>13</sub>
<b>CAS</b>	756526-03-1
<b>Purity</b>	> 97%

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

<b>Spacers</b>	dPEG® Spacer is 19 atoms and 21.568 Å
<b>Shipping</b>	Ambient
<b>Typical solubility properties (for additional information contact Customer Support)</b>	Methylene chloride, Acetonitrile, DMAC or DMSO.
<b>Storage and handling</b>	-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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