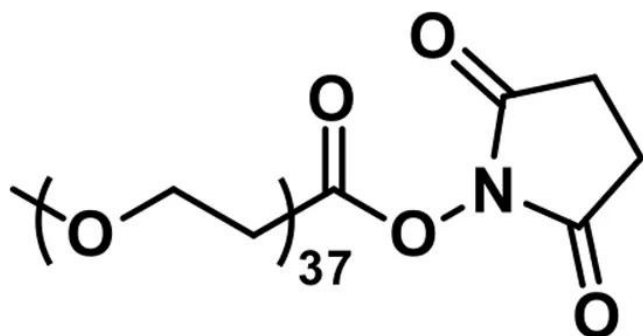




## **M-DPEG®<sub>37</sub>-NHS ESTER**

**SKU:** QBD-10910



### **DESCRIPTION**

m-dPEG®<sub>37</sub>-NHS ester, product number QBD-10910, is a long (112 atoms, 133.9 Å), methyl-terminated, discrete-length polyethylene glycol (dPEG®) spacer functionalized with an N-hydroxysuccinimidyl (NHS) ester to modify surfaces having accessible free amines.

Free amines react optimally with NHS esters in aqueous media at pH 7.0 - 7.5. In aqueous media, the rate at which the ester hydrolyzes to the carboxylic acid increases with increasing pH. Moreover, it should be noted that reacting surface amines on biomolecules (e.g., proteins and peptides) with this uncharged, methyl-capped dPEG® spacer may alter the overall charge of the resulting conjugates.

m-dPEG®<sub>37</sub>-NHS ester, product number QBD-10910, has been used successfully to modify silica shelled quantum dots used in imaging applications to make them water-soluble. Also, it has been employed to improve the pharmacokinetic (PK) and biodistribution (BD) properties of an antibody that targets an epitope that is found exclusively in adenocarcinomas. Carbon nanotubes and inorganic nanoparticles with amine-functionalized surfaces could also be modified to passivate the surface and make it hydrophilic. Moreover, proteins and other biomolecules conjugated to this product will have higher water solubility, reduced or eliminated antigenicity, reduced propensity to aggregate, and improved PK and BD properties.

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

