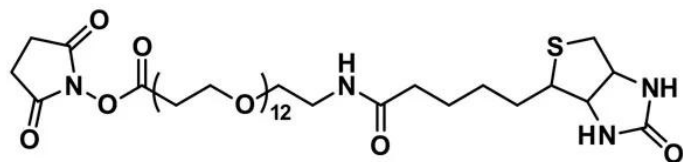




NHS-dPEG®₁₂-BIOTIN

SKU: QBD-10198



DESCRIPTION

Product number 10198, NHS-dPEG®₁₂-biotin, is a single molecular weight, discrete PEG biotinylation reagent containing a biotin label on one end of a medium length dPEG®₁₂ linker and an amine-reactive N-hydroxysuccinimide (NHS) reactive group on the other end. This product has been used and featured in numerous publications since it was first introduced. Biotin is normally poorly soluble in water, but the amphiphilic dPEG® linker imparts excellent solubility in water or aqueous buffer and in organic solvent. The NHS moiety of NHS-dPEG®₁₂-biotin reacts with free primary amines, such as the amines on the side chain of lysine, forming a stable amide bond. The biotin moiety is used in labeling experiments, supramolecular construction, affinity chromatography, pull-down assays, the creation of biotinylated antibodies, and many other applications.

NHS-dPEG®₁₂-biotin is water soluble and does not cause protein aggregation after labeling, unlike the widely used, hydrophobic biotinylation reagents, NHS-LC-biotin and NHS-LC-LC-biotin. This permits experiments that require a high degree of biotin labeling without concerns about loss of protein due to aggregation. Dissolution of the product in organic solvent is not required for conjugation, thus providing easier reaction setup and greater reaction reproducibility. The dPEG® linker in PN10198 is longer than the linkers in LC-biotin and LC-LC-biotin. Consequently, dPEG®₁₂-biotin provides better access of the biotin to the avidin or streptavidin binding pocket compared to these older, hydrophobic reagents. The optimal pH range for reacting NHS-dPEG®₁₂-biotin with free amines is 7.0 – 7.5.

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



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