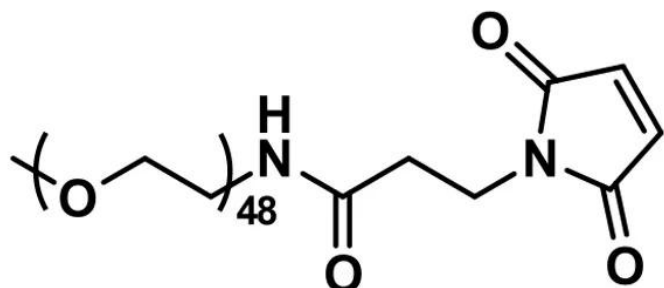




M-DPEG®₄₈-MAL

SKU: QBD-10932



DESCRIPTION

m-dPEG®₄₈-MAL, product number QBD-10932, is a sulfhydryl-reactive, single molecular weight, with a long (152 atoms, 178.6 Å), discrete-chain-length PEG (dPEG®). This product modifies surfaces and biomolecules with free thiol groups through the maleimide reactive group. The non-immunogenic, methyl-terminated dPEG® chain has no charge but adds water solubility and hydrodynamic volume to molecules to which it is conjugated.

The reaction of the maleimide end of m-dPEG®₄₈-MAL, product number QBD-10932, with a sulfhydryl proceeds best at pH 6.5 – 7.5. Conduct the conjugation at the lowest reasonable pH within this range. Above pH 7.5, free amines compete with free thiols at the maleimide reaction site, which creates confusing results. Moreover, at higher pH values, the maleimide ring may open to form unreactive maleamic acid.

Possible uses for m-dPEG®₄₈-MAL include the following:

Surface coating and passivation of thiolated nanoparticles;

Modification of cysteine residues on peptides, proteins, and other sulfhydryl-containing molecules to increase hydrophilicity and decrease immunogenicity;

Modification of cysteine residues on peptides, proteins, and other sulfhydryl-containing molecules to increase hydrodynamic volume and reduce or eliminate renal clearance of the modified compound;

Supramolecular construction (for example, of hydrogels); and,

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



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