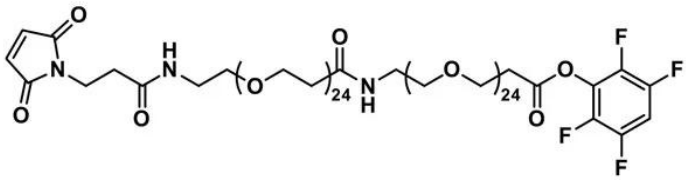
www.vectorlabs.com
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# MAL-DPEG®24-AMIDO-DPEG®24-TFP ESTER

**SKU:** QBD-11303



## DESCRIPTION

MAL-dPEG®24-amido-dPEG®24-TFP ester, product number QBD-11303, is a monodisperse, crosslinking PEGylation reagent that joins sulfhydryl groups to amines through a long (158 atoms, 183.5 Å), single molecular weight, discrete PEG (dPEG®) chain. One end of the crosslinker is functionalized with a maleimidopropyl (maleimide) group for reaction with free thiols, and the other end has the 2,3,5,6-tetrafluorophenyl (TFP) ester of propionic acid for reaction with free amines. The dPEG® linker consists of two dPEG®24 chains joined by an amide bond, making it functionally a dPEG®48 crosslinker with a molecular weight that is slightly more than 2000 Daltons. At pH 6.5 – 7.5, the maleimide group reacts specifically with sulfhydryl (thiol) groups to form a thioether bond. The TFP ester reacts with free amines to form amide bonds at an optimum reaction pH range of 7.5 – 8.0.

Crosslinking free thiols to free amines is one of the most popular and most useful reactions in bioconjugate chemistry. These reactions require heterobifunctional reagents that bridge the two groups. Typical, traditional crosslinkers are short and hydrophobic and frequently trigger aggregation and precipitation of conjugates made from them. In addition, traditional PEG crosslinkers use non-uniform (dispersed) polymer PEGs that consist of an intractable mixture of PEG chain lengths and molecular weights. The complexity arising from non-uniform PEG crosslinkers makes analyzing conjugates a challenging exercise.

In contrast, Vector Laboratories' dPEG® crosslinking products are water-soluble, amphiphilic, single molecular weight PEG compounds with discrete chain lengths. Our dPEG® products are uniform in chain length and molecular weight (Đ = 1). This uniformity of our dPEG® products eliminates one of the most vexing analytical difficulties faced by users of traditional polymer

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PEG products.

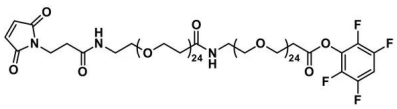
# SPECIFICATIONS

| | |
|---|---|
| **CAS Number** | N/A |
| **Molecular Weight** | 2573.87; single compound |
| **Chemical Formula** | $C_{115}H_{209}F_4N_3O_{54}$ |
| **Purity** | > 97% |
| **Unit Size** | 100 mg, 1000 mg |
| **Solubility** | Methylene Chloride, DMSO, DMAC, DMF, Acetonitrile or Chloroform. |
| **Spacers** | dPEG® Spacer is 158 atoms and 183.5 Å |
| **Storage Instructions** | -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. |
| **Shipping Instructions** | Ambient |

# DOCUMENTS

- Safety Data Sheet
- Datasheet

# GALLERY IMAGES



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