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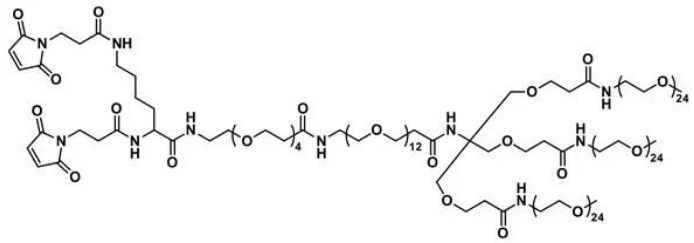
# BIS-MAL-LYSINE-DPEG®4-DPEG®12-TRIS(M-DPEG®24)3

**SKU:** QBD-11633



## DESCRIPTION

Bis-MAL-Lysine-dPEG®4-dPEG®12-Tris(m-dPEG®24)3, product number QBD-11633, is a unique product from Vector Laboratories. It consists of a carboxylic-acid terminated, branched dPEG® construct built around a tris core and functionalized with a short dPEG® linker that contains two thiol-reactive maleimide groups attached to lysine. The dPEG® spacers are 152 and 156 atoms, with average lengths of 113.0 and 115.4 Å. Three uncharged methoxy-terminated dPEG® spacers branch from the tris core of this product. Bis-MAL-Lysine-dPEG®4-dPEG®12-Tris(m-dPEG®24)3 is designed to modify the pharmacodynamics (PD), pharmacokinetics (PK), and biodistribution (BD) of conjugated biomolecules, while the bis-maleimide moiety is designed to bridge disulfide bonds by forming stable thioether bonds through the thiol-maleimide reaction.

This product is designed for modifying biomolecules like antibodies and antibody fragments but can be used in any bioconjugate application where free thiols are available for reaction. The two maleimide groups can bridge a reduced disulfide bond through the thiol-maleimide reaction, forming stable thioether bonds. Potential product applications include reducing or eradicating renal clearance, extending in vivo circulating half-life, and suppressing immune responses to conjugates.

Vector Laboratories' dPEG® technology provides high-quality, single molecular weight, discrete chain-length PEG (dPEG®) products for bioconjugation in therapeutic, diagnostic, and clinical research applications. Unlike traditional, non-uniform polymer PEGs, dPEG® products are synthesized in stepwise fashion from high-purity starting materials. The amphiphilic dPEG® construct imparts hydrophilicity to conjugates, reduces or eliminates the conjugates'

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antigenicity, and increases the hydrodynamic volume of conjugated molecules. With increased hydrodynamic volume, the renal clearance of conjugate molecules is reduced or eliminated. Moreover, optimization of the conjugate molecule's BD, PK, and PD is possible.

# SPECIFICATIONS

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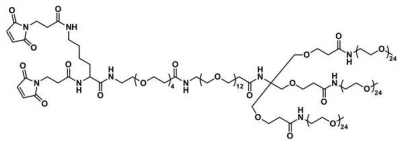
|---|---|
| **CAS Number** | N/A |
| **Molecular Weight** | 4825.69; single compound; |
| **Chemical Formula** | $C_{218}H_{416}N_{10}O_{103}$ |
| **Purity** | > 95% |
| **Unit Size** | 25 mg, 100 mg |
| **Solubility** | Methylene chloride, DMAC, DMSO or water |
| **Spacers** | dPEG® Spacers are 149 and 153 atoms; 110.3 and 112.5 Å, avg. |
| **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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