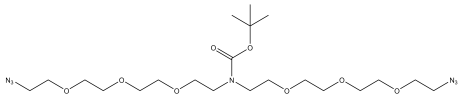
SUITE 201, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-637-6119 | Email: info@bioglyco.com

# Product Information

## NHS/Maleimide PEG reagent, Mal-PEG5-NHS ester, Purity 98%



**Cat. No.:** X24-09-YYX193

**Size:** 100 mg; 250 mg; 500 mg

**CAS Number:** 1807537-42-3

**PubChem CID:** 77078334

**Synonym:** 1807537-42-3; Mal-PEG5-NHS ester; Mal-PEG5-NHS; MAL-PEG5-NHSESTER; 2,5-dioxopyrrolidin-1-yl 1-(2,5-dioxo-2,5-dihydro-1*H*-pyrrol-1-yl)-3,6,9,12,15-pentaoxaoctadecan-18-oate

**This product is for research use only and is not intended for diagnostic use.**

## Product Information

| | |
|---|---|
| **Description** | Mal-PEG5-NHS ester acts as a PEG linker characterized by both maleimide and NHS ester functionalities. Its hydrophilic PEG spacer improves solubility when dissolved in water-based environments. The NHS ester allows for labeling primary amines *t*-found within proteins or other similar compounds containing amino groups, while the maleimide component reacts with thiol groups to form covalent bonds that enable connections between biomolecules with thiols. |
| **Molecular Weight** | 486.5 |
| **Molecular Formula** | $C_{21}H_{30}N_2O_{11}$ |
| **Functional Group 1** | NHS |
| **Functional Group 2** | Ester |
| **Functional Group 3** | Maleimide |
| **Reactive Group 1** | Thiol |
| **Reactive Group 2** | Amine |
| **IUPAC Name** | (2,5-Dioxopyrrolidin-1-yl) 3-[2-[2-[2-[2-[2-(2,5-dioxopyrrol-1-yl)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]propanoate |
| **InChI** | InChI=1S/C21H30N2O11/c24-17-1-2-18(25)22(17)6-8-30-10-12-32-14-16-33-15-13-31-11-9-29-7-5-21(28)34-23-19(26)3-4-20(23)27/h1-2H,3-16H2 |
| **InChI Key** | PDFXZGGPCFZXJU-UHFFFAOYSA-N |
| **Canonical SMILES** | C1CC(=O)N(C1=O)OC(=O)CCOCCOCCOCCOCCOCCN2C(=O)C=CC2=O |
| **Form** | Solid or viscous liquid |
| **Purity** | 98% |

SUITE 201, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-637-6119 | Email: info@bioglyco.com

| | |
|---|---|
| **Solubility** | DMSO, DCM, DMF |
| **Identity** | Confirmed by NMR. |
| **Applications** | Mal-PEG5-NHS ester is often utilized in the conjugation of biomolecules for targeted drug delivery or as a linker in various biotechnological applications. |
| **Storage** | Store at -20°C. |