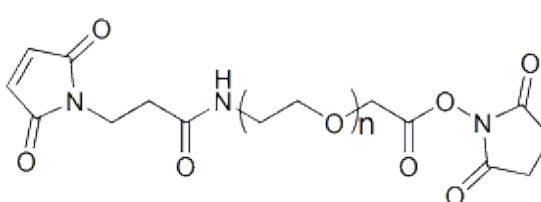
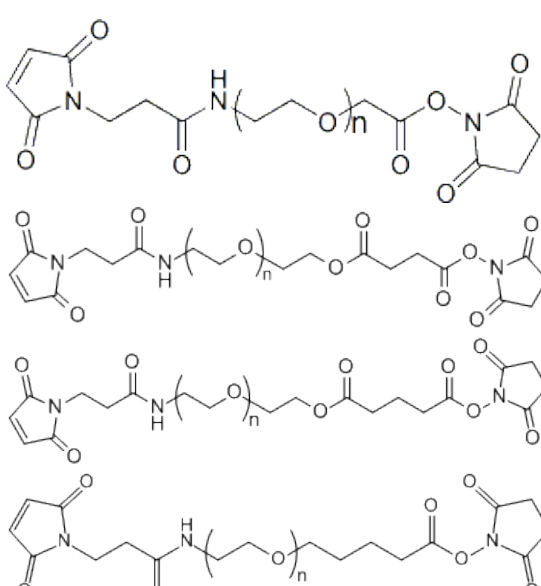
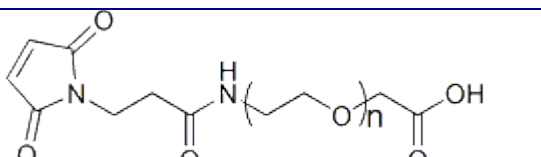


Maleimido – PEG – acids & NHS esters

Products Description

Chemical modifiers to convert sulfhydryls (SH) groups to carboxyls (COOH)

Product name	MW (g·mol ⁻¹)	Cat.Number 0-100mg 1-1g 2-5g	Structure example
Maleimide-PEG_x-NHS Syn.: Mal-NH-PEG _n -CH ₂ CH ₂ -COO-NHS Maleimide-Amido-PEG _{0,2K} -NHS ester Maleimide-Amido-PEG _{0,6K} -NHS ester Maleimide-Amido-PEG _{1K} -NHS ester Maleimide-Amido-PEG _{2K} -NHS ester Maleimide-Amido-PEG _{3,4K} -NHS ester Maleimide-Amido-PEG _{5K} -NHS ester Maleimide-Amido-PEG _{10K} -NHS ester Maleimide-Amido-PEG _{20K} -NHS ester See also Maleimide-Amido-PEO _n -NHS ester # DY6611 (n=2-4-6-8 ; Synthetic : monodisperse PEG, discrete PEG)	200 600 1000Da 2000Da 3400Da 5000Da 10000Da 20000Da	AWK6D1 AWK6H1 B36LC1 IO5122 WU0691 DY6611 WU0701 WU0711	 <p>Soluble in regular aqueous solution as well as most organic solvents;</p>
Ask also for Maleimide-PEG_x-Succinimidyl Carboxymethyl Ester Syn. : Mal-PEG-SCM Maleimide-PEG_x-Succinimidyl Succinate ester Syn. : Mal-PEG-SS Maleimide-PEG_x-Succinimidyl Glutarate ester Syn. : Mal-PEG-SG Maleimide-PEG_x-Succinimidyl Valerate Syn. : Mal-PEG-SVA		Inquire Inquire Inquire Inquire	
Maleimide-PEG_x-Carboxylic acid Syn.: Mal-NH-PEG _n -CH ₂ CH ₂ -COOH		Inquire	

Store: at -20°C for long term. Possible at +4°C (L), protect from moisture.

Contact your local distributor

uptima@interchim.com

Technical Information

Allow vial to warm to room temperature before opening.

- Available **spacers** (the arm separating the maleimide and th other groups) are hydrophilic PEO structure, all non-cleavable. Longer spacers PEO spacer confer not only similar advantages but hydrophilicity to the conjugates:
Increases water solubility of crosslinker, *of conjugates or conjugates/ligands complexes
Increases stability*: **reduced aggregation** of conjugates
Increases biocompatibility*: **non-immunogenic, non-toxic**
Increases availability *: lower steric hindrance of conjugated partners favours interactions and bioactivity.
Reduces non-specific binding on surfaces
Perfectly defined unique structure (discrete PEG)
- The **maleimide** group reacts very specifically with sulfhydryls at neutral pH 6.5-7.5, forming a stable thioether link. The reaction is rapid (a few minutes for cystein), but may require 1-2 hours to be completed in certain conditions (up 4H at +4°C). The competitive hydrolysis forming maleamic acid becomes noticeable when pH go up 8.0, where the reactivity with amines begins to be possible. It is stable in 0.1 M phosphate, pH 7.0, 4 °C, for 64 h ([Yoshitake 1979](#)). In usual conditions, one should start with a ratio of 10-20 moles of maleimide per mole of protein. With SH-peptides, a molar 1:1 incubation ratio allows almost 1:1 coupling.
- See information about each functional group in the technical notice XLfct.

Protocols can be found in the literature.

Other Information

For in vitro R&D use only

Other products using [BioSciences Innovations catalogue](#) and [e-search tool](#).

- Heterobifunctional crosslinkers: NHS-MAL reagents, i.e. [NHS-PEO-MAL AL6581](#) and SMCC [17412A](#)
- Homobifunctional crosslinkers: NHS-NHS reagents, i.e. [NHS-PEO-NHS BH8811](#) and DSS [54940A](#)
- Homobifunctional crosslinkers: MAL-MAL reagents, i.e. [MAL-PEO-MAL L7736A](#) and BMOE [L7730A](#)
- PEO Linkers & modifiers: MAL-COOH [AZ4170](#) and BMPA [43064A](#);
NHS-PEG-COOH [AN1280](#); mPEG-NHS [DZ3531](#) and others (-SH, -OH,...)
- PhotoActivable (PA) crosslinkers: SH and PA reactive i.e. SCBP #[B11361](#),...
- Hydrazone chemistry: [Conjugation kit #BL1501](#) and crosslinkers (SANH #[BL9270](#), MHPH #[BL9401](#) SH-reactive)

Please contact Uptima – Interchim for any other information

Rev.T03E