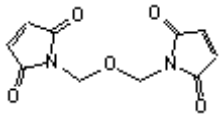
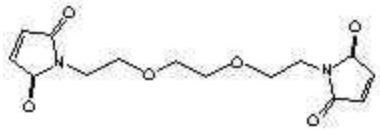
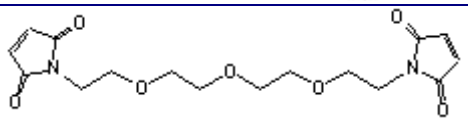
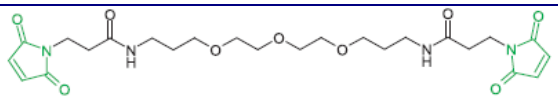
FT-L7736A

# Homobifunctional SH-reactive crosslinkers

## Bis-Maleimido PEO crosslinkers (*BMOE analogs*)

### Products Description

*Sulfhydryls (SH) reactive Homobifunctional crosslinkers with an hydrophilic PEO (PEG) spacer*

| **Product name** cat.number | **MW** ($g \cdot mol^{-1}$) | Spacer | mp |
|---|---|---|---|
| **MAL-$CH_2OCH_2$-MAL (BMME)** BJ004A, 100mg . | **236.18** | (3 atoms) | °C  |
| **MAL-$PEO_3$-MAL** L7735A, 100mg . | **308.3** | 14.7Å | °C  |
| **MAL-$PEO_4$-MAL** L7736A, 100mg | **352.3** | 17.8Å | °C  |
| **MAL-sc-$PEO_4$-sc-MAL** AZ4180, 50mg | **522.55** | 30 Å (28 atoms) |  |

**Store**: at +4°C (L), protect from moisture.

These Maleimide derivatives ar analogs of BMOE/BMB,BMH crosslinkers having a **hydrophilic PEO spacer** available with several spacer lengths. They react with sulfhydryl groups (SH) at pH 6.5-7.5.

See related products for **Analogs with alkyl spacer** (BMOE, BMB and BMH)
**Analogs with a cleavable spacer** (HBVS, DTME, DPDPB/Loment, MMP)

Features:

- **sulfhydryl reactive** crosslinker
- **PEO spacer** confers several advantages over classic spacers, conferring better hydrophilicity to the final conjugate:

**Increases water solubility** of crosslinker and of conjugates*
**Increases stability*: reduced aggregation** of conjugates
**Increases biocompatibility***: non-immunogenic, non-toxic
**Increases availability** *: conjugate more hydrophilic and bioactive
**Reduces non-specific binding on surfaces**
Perfectly defined unique structure (discrete PEG)

Applications:

preparation of protein-protein conjugates:
. antibody-enzyme for immunoassays
. SH-peptide-carrier for immunization and screening
. Polymers preparation

*:of conjugates or conjugates/ligands complexes

Contact your local distributor
uptima@interchim.com

Uptima, powered by
interchim 213 Avenue J.F. Kennedy - BP 1140 03103 Montluçon Cedex - France Tél. 04 70 03 88 55 - Fax 04 70 03 82 60

# Technical Information

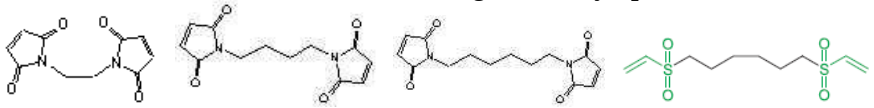
Allow vial to warm to room temperature before opening.

- 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 cysteine), 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.
- Available **spacers** (the arm separating the maleimide and carboxyl groups) are aryl chains in several lengths, and a hydrophilic PEO structure, all non-cleavable. Longer spacers lower steric hindrance of conjugates partners and favours interactions with other ligands. Similarly, advantages are confers by the PEO spacer that confers hydrophilicity to the conjugates with several advantages as higher achievable coupling ratio, better stability, non-immunogenicity, and improved interactions

Protocols can be found in the litterature.

### Related products

● **Analogs** homobifunctional crosslinkers, with alkyl spacer or cleavable spacers:
[FT-L7730A]: BMOE, BMB, HBSV: analogs with **alkyl spacer**



[FT-L7734A]: DPDPB, DTME, MMP: analogs with **cleavable**

[FT-BJ002A]: BMP2$^{(BJ003A)}$, BMP3$^{(36000A)}$, BMP4$^{(BJ002A)}$: analogs with **aromatic** spacer

● many other Crosslinkers: Homo-, Hetero-bifunctional, multi-functionnal, branched
See BioSciences Innovations catalogue , on-line catalogue and e-search tool.

# Other Information

For in vitro R&D use only

Please contact Uptima – Interchim for any other information

Rev.R10E-M11E-K07E