

Instructions for PEG Maleimide Conjugation

1. Introduction

PEG maleimide is a kind of mercaptol (mercapto / SH) active polyethylene glycol compounds that can be used to selectively modify proteins, peptides or any surface with available mercaptol groups. The reaction between maleimide and mercaptol is easily performed in a neutral or weakly alkaline buffer to form a stable thioether bond.

2. Product information

- Off-white / white solid or viscous liquid depends on molecular weight.
- Soluble in general aqueous and most organic solvents.
- Store at -20 °C to avoid frequent thawing and freezing.
- Generally, the molar amount of polyethylene glycol-maleimide is 10-20 times that of mercaptan containing substances.

3. Additional Materials Required

- Polyethylene glycol buffer, PBS buffer, pH 7 or other pH 7 sulfur-free buffer.
- Maleimide stock solution: 100mg / 1ml conjugate buffer.
- Washing solution: distilled water or any aqueous buffer.

4. Procedure for thiol-bearing molecular modification with

PEG Maleimide

- (1) Dissolve the target substance in coupling buffer and estimate the concentration of mercaptol group on the target substance
- (2) Add PEG maleimide stock solution to the target conjugate, and the final concentration should be kept above 10 mg / mL.
- (3) The amount of polyethylene glycol maleimide required for optimal bonding is 10-20 mol / L.
- (4) The reaction mixture is stirred at room temperature for 2 ~ 4 hours or overnight at 4 ° C.
- (5) The final conjugate can be purified by exclusion chromatography, dialysis or other required methods.