

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 $^{\circ}$ C.

(5) The final conjugate can be purified by exclusion chromatography, dialysis or other required methods.

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