

TECHNICAL DATA SHEET

Methoxy PEG Thiol, mPEG-SH

Catalog Numbers: PG1-TH-350, 550, 750, 1k, 2k, 5k, 10k, 20k, 30k, 40k.

Synonym: MPEG Thiol, PEG thiol, Methoxypolyethylene glycol thiol, Thiol PEG, Sulfhydryl PEG, mPEG sulfhydryl

Description:

mPEG thiol (mPEG-SH) is one of Nanocs' thiol/sulfhydryl (-SH) functionalized polyethylene glycol derivatives that can be used to modify proteins, peptides, particles and other materials with its free thiol group. Thiol group has high affinity toward gold surfaces and this material has been widely used for gold particle and gold film surface modification. In addition, thiol group can react with many other thiol reactive groups, such as maleimide, iodoacetyle, pyridyldithio, etc. Reaction between thiol and above groups allows guick and efficient attachment of PEG chain to the targeted substrates. Nanocs' thiol PEG derivatives are readily soluble in aqueous solution and many commonly used organic solvents. Pegylation with these thiol PEGs can stabilize the modified molecules and particles; it can also suppress the non-specific binding to the modified surfaces.

Product Structure:

 $CH_{3}O\text{-}(CH_{2}CH_{2}O)_{n}\text{-}CH_{2}CH_{2}\text{-}SH$

Product Specifications:

- Composition: **mPEG Thiol**.
- Appearance: White/off-white solid, semi-solid or liquid depends on molecular weight.
- Solubility: 10 mg/mL, clear in water, ethanol, chloroform, DMSO.
- Reactive group: Thiol (-SH).

Handling and Use:

mPEG thiol derivatives undergo oxidation process to form disulfides once exposed to the air. Material should

always be kept in low temperature in dry condition. Prepare fresh solution right before use. Avoid frequent thaw and freezing. Certain percentage material may be in disulfide form. Reduction with DTT or TCEP recommended if you need high percentage from thiols. For more information about using this product, visit www.nanocs.net.

Storage Conditions:

Thiol PEG should be stored at -20 ^oC. Desiccate. Materials may be handled under inert gas for best stability. Re-test material after 6 months.

This product is for research use only and is not intended for use in humans or for diagnostic use.

Related Products:

Thiol PEG NHS Thiol PEG COOH Thiol PEG Azide Thiol PEG NH₂ Thiol PEG DSPE Thiol PEG Biotin

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