**Proteins** 

# **Product** Data Sheet

## m-PEG-thiol (MW 1000)

Cat. No.: HY-W591476 CAS No.: 134874-49-0 Molecular Formula:  $(C_2H_4O)nC_3H_8OS$ 

Target: Liposome

Pathway: Metabolic Enzyme/Protease Storage: 4°C, protect from light

\* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

### **SOLVENT & SOLUBILITY**

In Vitro DMSO: 100 mg/mL (Need ultrasonic)

In Vivo 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline

Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)

Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution

#### **BIOLOGICAL ACTIVITY**

Description

m-PEG-thiol (MW 1000) modifies DNA thiolation for the synthesis of gold nanorods (AuNRs). Thiolated DNA can be loaded onto AuNR by the mPEG-SH/Tween 20 assisted method (Tween 20 and mPEG-SH repeatedly displace CTAB on the AuNR surface). DNA AuNRs have been widely used in nanostructure assembly, gene therapy, biosensing, and drug delivery.

#### **REFERENCES**

[1]. Li J, et al. Simple and Rapid Functionalization of Gold Nanorods with Oligonucleotides Using an mPEG-SH/Tween 20-Assisted Approach. Langmuir. 2015 Jul 21;31(28):7869-76.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA