

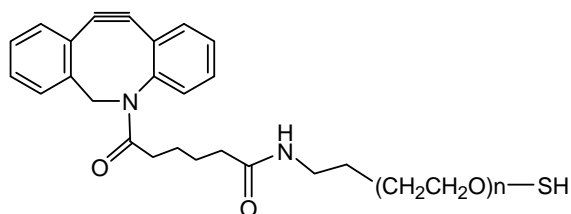
**TECHNICAL DATA SHEET**
**DBCO PEG SH, MW 400, 600, 1000, 2000, 3400, 5000, 10k, 20k**

Catalog Numbers: PG2-DBTH-400, 600, 1k, 2k, 3k, 5k, 10k, 20k.

Synonym: DBCO PEG Thiol, Thiol PEG DBCO, HS PEG DBCO, Sulfhydryl PEG DBCO, DABCO PEG Thiol

**Description:**

**DBCO PEG Thiol** is one of Nanocs' reactive DBCO PEG derivatives that can go Click Chemistry reaction without a need of any metal catalysts. DBCO (dibenzocyclooctyne) is a cyclooctyne which has excellent reactivity toward azido ( $-N_3$ ) group. The strain-promoted 1,3-dipolar cycloaddition of cyclooctynes and azides, also termed as the Cu-free click reaction, is a bioorthogonal reaction that enables the conjugation of two molecules in aqueous solution. **DBCO PEG** derivatives possess fast kinetics and stability in aqueous buffer. DBCO reagents thus can be used to label azide-modified materials spontaneously without the need for toxic Cu catalysts. Thiol group, on the other hand, can react with a number of sulfhydryl reactive groups such as maleimide and pyridyldisulfide. Thiol PEG is also a useful reagent to modify gold nanoparticles. PEG linker between DBCO and thiol group offers good water solubility, flexible linker structure and enhanced stability.

**Product Structure:**

**Product Specifications:**

- Composition: **DBCO PEG Thiol.**
- Appearance: Yellow/off-yellow solid, semi-solid depends on molecular weight.
- Solubility: Soluble in water, ethanol, chloroform, DMSO, etc.
- Reactive groups: DBCO, thiol.

**Handling and Use:**

**DBCO PEG Thiol** is sensitive to moisture and temperature. For best use, material should always be kept in low temperature in dry condition. Prepare fresh solution right before use. Avoid frequent thaw and freezing. For more information about using this product, visit [www.nanocs.net](http://www.nanocs.net).

**Storage Conditions:**

**DBCO PEG Thiol** should be stored at  $-20^{\circ}\text{C}$ . Desiccate. Protect from light. Materials may be handled under inert gas for best stability.

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

**Related Products:**

DBCO PEG  $\text{NH}_2$   
 DBCO PEG  $\text{COOH}$   
 DBCO PEG Maleimide

DBCO PEG NHS  
 DBCO PEG FITC  
 DBCO PEG Biotin

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