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#### **TECHNICAL DATA SHEET**

# DBCO PEG NHS, MW 400, 600, 1000, 2000, 3400, 5000, 10k, 20k

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

Synonym: NHS PEG DBCO

#### **Description:**

DBCO PEG NHS is one of Nanocs' amine reactive DBCO PEG derivatives that can go Click Chemistry reaction without a need of any metal catalysts. DBCO (dibenzocyclooctyne) is a cyclooctyne that can react with azide/azido group with high efficiency. The strainpromoted 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 good stability in aqueous buffer. NHS is a commonly used reactive group that can react with primary amine groups at alkaline pH with high efficiency. Reaction between NHS and amine allows the labeling and conjugation of DBCO group to various molecules. Resulted DBCO group can be used for reactions with azide. PEG linker between DBCO and NHS offers good water solubility, less steric hindrance and enhanced stability.

# **Product Structure:**

### **Product Specifications:**

Composition: DBCO PEG NHS.

Appearance: White/off-white solid, semi-solid

depends on molecular weight.

Solubility: 10 mg/mL, clear in water,

ethanol, chloroform, DMSO.

Reactive groups: DBCO and NHS.

Reactive to: Azide and Primary amine.

### Handling and Use:

**DBCO PEG NHS** 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.** 

### **Storage Conditions:**

**NHS PEG DBCO** should be stored at -20 °C. Desiccate. Protect from light. 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:

DBCO PEG NH2DBCO PEG COOHDBCO PEG MaleimideDBCO PEG ThiolDBCO PEG BiotinDBCO PEGDBCO PEG Folate

#### To Order:

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