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#### **TECHNICAL DATA SHEET**

# DBCO PEG Cy5, MW 2000, 3400, 5000, 10k, 20k

Catalog Numbers: PG2-DBS5-2k, 3k, 5k, 10k, 20k.

Synonym: Cy5 PEG DBCO.

### **Description:**

Cy5 PEG DBCO is a one of Nanocs' fluorescent DBCO PEG derivatives that can go Click Chemistry reaction without a need of any metal catalysts. DBCO (dibenzocyclooctyne) is a cyclooctyne with excellent reactivity toward azide group. The strain-promoted 1,3dipolar 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. Reaction between DBCO and azide allows the labeling and conjugation of Cy5 dye to targeted molecules fast and efficiently. Cy5 is a near infrared fluorescent molecule with excitation/emission wavelength at 650 nm/670 nm. It emits strong near infrared fluorescent light that can be easily detected. PEG linker between DBCO and Cy5 offers good water solubility, flexible linker structure and enhanced stability.

### **Product Structure:**

## Product Specifications:

Composition: DBCO PEG Cy5.

Appearance: Blue solid, semi-solid depends

on molecular weight.

Solubility: Soluble in water, ethanol,

chloroform, DMSO, etc.

Reactive group: DBCO.

• Ex/Em wavelength: 650 nm/670 nm.

### Handling and Use:

**DBCO PEG Cy5** 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:**

**Cy5 PEG DBCO** should be stored at -20 °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:**

 $\begin{array}{lll} \mbox{DBCO PEG NHS} & \mbox{DBCO PEG NH}_2 \\ \mbox{DBCO PEG Maleimide} & \mbox{DBCO PEG Thiol} \\ \mbox{DBCO PEG FITC} & \mbox{Cy3 PEG DBCO} \end{array}$ 

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