DBCO-PEG4-TAMRA

Cat. No.:	HY-D1070
CAS No.:	1895849-41-8
Molecular Formula:	$C_{54}H_{57}N_5O_{10}$
Molecular Weight:	936.06
Target:	DNA Stain
Pathway:	Cell Cycle/DNA Damage
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (53.42 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.0683 mL	5.3415 mL	10.6831 mL
	5 mM	0.2137 mL	1.0683 mL	2.1366 mL
	10 mM	0.1068 mL	0.5342 mL	1.0683 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.25 mg/mL (1.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DBCO-PEG4-TAMRA is a PEG-based TAMRA dye and contains a DBCO group, which enables Click Chemistry. The TAMRA dye is a dye widely used in oligonucleotide labeling and automated DNA sequencing applications. DBCO-PEG4-TAMRA is a click chemistry reagent, it contains a DBCO group that can undergo strain-promoted alkyne-azide cycloaddition (SPAAC) with molecules containing Azide groups.

IC_{50} & Target

TARMA Dye

In Vitro

Click chemistry refers to a group of reactions that are fast, simple to use, easy to purify, versatile, regiospecific, and give high product yields. Click chemistry reaction is suitable for cell marker and low concentration reaction with low toxicity.
DBCO reacts with azide functionalized compounds or biomolecules without catalyst to form a stable triazole linkage, which is an ideal alternative to copper intolerant applications.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hein CD, et al. Click chemistry, a powerful tool for pharmaceutical sciences.Pharm Res. 2008 Oct;25(10):2216-30.

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

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