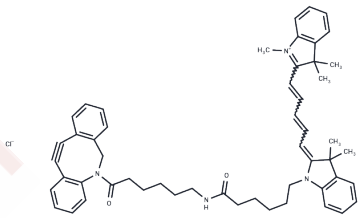
Data Sheet (Cat.No.T212439)

TargetMol

Cyanine 5 DBCO

Chemical Properties



CAS No. : 3091879-39-6

Formula: C53H59ClN4O2

Molecular Weight: 819.51

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Cyanine5 DBCO (DBCO-Cy5) is a low-toxicity azide-reactive probe (near-infrared fluorescent dye) designed for imaging azide-labeled biomolecules via copper-free "click chemistry" [Ex=635 nm, Em=650-700 nm]. It exhibits no significant cytotoxicity in cells or animals and does not impact the physiological functions of non-target cells. Cyanine5 DBCO is suitable for labeling and tracking cells both in vivo and in vitro.
Targets(IC50)	Others
In vitro	Guide (The following is our recommended solution. This solution is merely a guideline and should be modified according to your specific needs.): For solution preparation, 1) Stock Solution: Use DMSO as the solvent with a recommended concentration of 20 mM. Store in aliquots at -20°C or -80°C, shielded from light, and avoid repeated freeze-thaw cycles. 2) Working Solution: Dilute with PBS or serum-free medium to 20 μM (optimize for specific experiments), and use immediately while protecting from light. For cell labeling (e.g., A549 cells), 3) Seed 2 mL of growing cells at a density of 3×10^4 (cell-dependent) in a 35 mm glass-bottom culture dish. 4) Add Ac4ManNAz (50 μM, final concentration) and incubate for 3 days to produce azide groups on the cell surface. 5) Wash cells twice with DPBS (pH 7.4). 6) Incubate cells with Cyanine5 DBCO (20 μM, final concentration) at 37°C for 1 hour. 7) Rinse with DPBS (pH 7.4) and fix with a formaldehyde-glutaraldehyde solution at 25°C for 15 minutes. 8) Wash cells twice with DPBS (pH 7.4) and stain with DAPI to label nuclei. 9) Measure Cyanine5 DBCO fluorescence using a confocal laser scanning microscope (Ex=635 nm, Em=650-700 nm). Note: 1) After Ac4ManNAz treatment, Cyanine5 DBCO can target azide groups introduced on the cell surface for over 3 days. 2) Cyanine5 DBCO labeling is dose-dependent. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2202 mL	6.1012 mL	12.2024 mL
5 mM	0.244 mL	1.2202 mL	2.4405 mL
10 mM	0.122 mL	0.6101 mL	1.2202 mL
50 mM	0.0244 mL	0.122 mL	0.244 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.