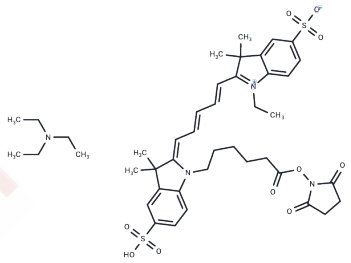
Data Sheet (Cat.No.T8836)

TargetMol

CY5-SE triethylamine salt

Chemical Properties



CAS No. : 1497420-70-8

Formula: C43H58N4O10S2

Molecular Weight: 855.07

Storage: Keep away from direct sunlight,Store at low temperature
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	CY5-SE triethylamine salt (Fluorolink Cy5 triethanolamine salt) is a hydrophilic amine-reactive fluorescent probe. It displays excitation/emission maxima of 646/662 nm, respectively. Cy5-SE-conjugated ligands have been used in the characterization of hematopoietic tumor microenvironments.
Targets(IC50)	Others
Cell Research	Instructions I. Preparation of reagents 1. Preparation of mother solution: Use DMSO (or other appropriate solvents), the concentration can be adjusted according to experimental requirements, generally 1 mM. 2. Preparation of working solution: If it is needed for labeling, it can be diluted with PBS or other suitable buffer as needed. The working concentration is generally between 10-100 μM, and the specific concentration is adjusted according to the experimental design. II. Operation steps 1. Labeling process: 1) Labeling proteins, peptides or oligonucleotides: Mix CY5-SE with target molecules (such as proteins, peptides, oligonucleotides, etc.). At room temperature, the reaction generally takes 30 minutes to 1 hour. The reaction conditions can be carried out in a buffer with a pH value of 7-8. 2) Reaction conditions: CY5-SE reacts with the amino group of the target molecule (such as the amino group of amino acids, the amino group of peptide chains), so the target molecule should have an amino group available for reaction. 3) Removal of unreacted dye: After the reaction is completed, dialysis, gel filtration or ultrafiltration can be used to remove unbound dye. This ensures the purity of the labeling and reduces background fluorescence. 2. Fluorescence detection: 1) Fluorescence microscope or flow cytometer: The labeled samples can be detected by fluorescence microscope or flow cytometer, with an excitation wavelength of 649 nm and an emission wavelength of 670 nm. 2) Fluorescence intensity determination: The intensity of the fluorescence signal is proportional to the number of labeled molecules. By detecting the signal intensity, the target molecules can be quantitatively analyzed. 3. Data analysis:

Cell Research	1) Fluorescence quantitative analysis: According to the change in fluorescence intensity, the concentration of the target molecule can be calculated. The fluorescence intensity can be compared with the standard curve for further quantitative analysis. 2) Control group: The difference in fluorescence intensity between the control group and the experimental group helps to evaluate the effect of different treatment conditions on the labeling effect of the target molecule in the experiment. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 10 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 1 mg/mL (1.17 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1695 mL	5.8475 mL	11.6949 mL
5 mM	0.2339 mL	1.1695 mL	2.339 mL
10 mM	0.1169 mL	0.5847 mL	1.1695 mL
50 mM	0.0234 mL	0.1169 mL	0.2339 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.

Reference

Yang Q, et al. Folic acid source, usual intake, and folate and vitamin B-12 status in US adults: National Health and Nutrition Examination Survey (NHANES) 2003-2006. Am J Clin Nutr. 2010 Jan;91(1):64-72.
Nielsen KM, et al. Gene conversion as a source of nucleotide diversity in Plasmodium falciparum. Mol Biol Evol. 2003 May;20(5):726-34.