

Sulfo-Cy5.5 Trifluoroacetate

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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	Sulfo-Cy5.5 Trifluoroacetate is a kind of cyano dye, which is very suitable for non-invasive in vivo near-infrared imaging, and is suitable for applications that require a low fluorescence background.
Targets(IC50)	Others
Cell Research	<p>1. In vivo imaging Experimental steps:</p> <ol style="list-style-type: none"> 1. Solution preparation: Dissolve Sulfo-Cy5.5 Trifluoroacetate in an appropriate solvent, such as dimethylsulfoxide (DMSO) or PBS, and the concentration is prepared according to in vivo experimental requirements (usually 50-500 μM). 2. Dosing: According to the experimental design, choose to inject the solution into the animal model by intravenous injection or subcutaneous injection. 3. In vivo imaging: In vivo imaging is performed using near-infrared fluorescence imaging system. The excitation wavelength is usually 675 nm and the emission wavelength is 694 nm. According to experimental needs, select appropriate time points to capture imaging data to monitor the distribution and clearance of dyes in vivo. 4. Data analysis: Analyze the fluorescence intensity of different tissue sites and evaluate the distribution, localization and clearance of dyes. <p>2. In vitro tissue imaging Experimental steps:</p> <ol style="list-style-type: none"> 1. Injection and perfusion: Sulfo-Cy5.5 Trifluoroacetate was injected according to in vivo imaging. After a certain period of time, the animal was euthanized and the tissue was removed for analysis. 2. Tissue preparation: Use PBS to clean the tissue, remove excess solution, and then process the tissue for in vitro imaging. 3. Imaging: Use an in vivo imaging system or fluorescence microscope to image tissue sections, select appropriate filters for imaging, and observe the distribution of dye in the tissue. 4. Quantitative analysis: Quantitatively analyze the distribution of dye by measuring the fluorescence intensity of different tissue sites. <p>III. Biomolecular markers Experimental steps:</p> <ol style="list-style-type: none"> 1. Coupling: Sulfo-Cy5.5 Trifluoroacetate can be coupled to proteins, peptides or other biological molecules through standard coupling reactions (such as NHS ester reacting

Cell Research	<p>with amino groups).</p> <ol style="list-style-type: none">2. Purification: After the coupling reaction is completed, the labeled biomolecules are purified by dialysis or size exclusion chromatography to remove unreacted dyes.3. In vivo imaging: Inject labeled biomolecules into animal models, and use a near-infrared fluorescence imaging system to monitor the distribution and dynamics of biomolecules in vivo.4. Data analysis: Using fluorescent signals, the distribution, dynamic behavior and relationship with pathological processes of labeled biological molecules in the body. <p>IV. Cell imaging</p> <p>Experimental steps:</p> <ol style="list-style-type: none">1. Cell labeling: In cell culture experiments, Sulfo-Cy5.5 Trifluoroacetate can label cells by coupling to antibodies, peptides, or other cell-targeting molecules. The coupling dye was added to the cultured cells and the concentration was optimized according to the experimental requirements.2. Incubate: Incubate cells with dye solution, usually from 30 minutes to 1 hour.3. Wash: After incubation, wash the cells with PBS to remove unbound dye.4. Fluorescence imaging: Cell images are captured using fluorescence microscopes or near-infrared imaging systems, and the Cy5.5 emission band (about 694 nm) is usually used to monitor cells' uptake and localization of dyes. <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>
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Solubility Information

Solubility	DMSO: 12.5 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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