

Cyanine5.5 amine

Chemical Properties

CAS No. : 2097714-45-7

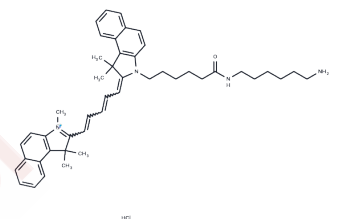
Formula: C₄₆H₅₈Cl₂N₄O

Molecular Weight: 753.88

Keep away from direct sunlight

Storage: Store at -20°C

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Cyanine5.5 amine is an amino-modified Cy5.5 near-infrared (NIR) fluorescent dye with excitation/emission wavelengths of 648/710 nm. It offers the advantage of low fluorescence background and is suitable for group conjugation and in vivo imaging.
Targets(IC50)	Others
In vivo	<p>Instructions:</p> <p>Real-time monitoring of Cyanine5.5 amine-labeled nanoparticles (Cy5.5-PLGA) in retinal blood vessels was conducted as follows: Freshly prepared Cy5.5-PLGA suspensions (resuspended in 0.5 ml 1% poloxamer 188, gently vortexed, and left for 30 min at ambient temperature before use) were administered intravenously (0.5 mL). Rats were anesthetized, their eyes treated with Neosynephrine-POS 5%, and Vidisic eye gel was applied. The rats were positioned under a confocal scanning microscope with a cannula in the tail vein. Fluorescence in the retina was observed and imaged at different time points (0, 1, 3, 5, 15, 30, 60, 90 min) while the rats were kept on a heating plate. After imaging, the rats were euthanized with an overdose of anesthetic, their eyeballs enucleated, and placed in cooled HEPES-buffered solution (135 mM NaCl, 5 mM NaOH, 2.5 mM KCl, 7 mM MgCl₂, 10 mM HEPES, 10 mM glucose; pH 7.4). The anterior segment and vitreous body were removed, and the retina was carefully separated and flattened on a culture plate. Retinal whole mounts were incubated with 0.1 mg/mL Hoechst 33342 in HEPES solution for 20 min for nuclei staining, fixed with 4% paraformaldehyde for 20 min, washed with HEPES solution, and imaged immediately with a microscope.</p>

Solubility Information

Solubility	DMSO: 80 mg/mL (106.12 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3265 mL	6.6324 mL	13.2647 mL
5 mM	0.2653 mL	1.3265 mL	2.6529 mL
10 mM	0.1326 mL	0.6632 mL	1.3265 mL
50 mM	0.0265 mL	0.1326 mL	0.2653 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

Seungho Lim, et al. Intracellular Uptake Mechanism of Bioorthogonally Conjugated Nanoparticles on Metabolically Engineered Mesenchymal Stem Cells. *Bioconjug Chem.* 2021 Jan 20;32(1):199-214.

Enqi Zhang, et al. Release kinetics of fluorescent dyes from PLGA nanoparticles in retinal blood vessels: In vivo monitoring and ex vivo localization. *Eur J Pharm Biopharm.* 2020 May;150:131-142.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481