

DiR iodide

Chemical Properties

CAS No. :	100068-60-8
Formula:	C ₆₃ H ₁₀₁ IN ₂
Molecular Weight:	1013.39
Storage:	Keep away from direct sunlight, Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	DiR iodide (DiR iodide [1,1'-dioctadecyl-3,3,3',3'-tetramethylindotricarbocyanine iodide]) is an important near infrared (NIR) fluorescent dye (Ex/Em=750/780 nm), which has been widely used for in vivo monitoring of cells.
Targets(IC50)	Others
In vitro	Stain adherent cells: Grow adherent cells on sterile glass coverslips. Remove coverslips from growth medium and gently drain off excess medium. Place coverslip in a humidity chamber. Pipet 100 µL of the dye working solution onto the corner of a coverslip and gently agitate until all cells are covered. Incubate the coverslip at 37°C for 2-20 minutes. Drain off the dye working solution and wash the coverslips two to three times with pre-warmed growth medium. Microscopy Detection: DiI, 549/565 nm, XF32-Omega, 31002-Chroma; DiR, 748/780 nm, XF112-Omega, 41009-Chroma
Cell Research	<p>Instructions:</p> <p>I. Solution preparation</p> <ol style="list-style-type: none"> 1. Mother solution preparation: DiR iodide is prepared with DMSO at a concentration of 1-5 mM. 2. Working solution preparation: Dilute the mother solution to a suitable buffer such as serum-free culture medium, HBSS or PBS to prepare a working solution of 1 to 5 µM. <p>II. Suspended cells</p> <ol style="list-style-type: none"> 1. Centrifuge at 1000 g for 3-5 minutes at 4°C, discard the supernatant, and wash twice with PBS for 5 minutes each. The cell density is 1×10⁶/mL. 2. Add 1 mL Di working solution and incubate at room temperature for 5-30 minutes. 3. Centrifuge at 400g for 3-4 minutes at 4°C and discard the supernatant. 4. Wash twice with PBS for 5 minutes each. 5. Resuspend the cells with serum-free cell culture medium or PBS and observe with fluorescence microscopy or flow cytometry. <p>III. Adherent cells</p> <ol style="list-style-type: none"> 1. Culture adherent cells on sterile coverslips. 2. Remove the coverslip from the culture medium and aspirate the excess culture medium. 3. Add 100 µL of working solution, shake gently to completely cover the cells, and incubate at room temperature for 5-30 minutes.

Cell Research	4. Wash twice with culture medium, 5 minutes each time. Observe by fluorescence microscopy or flow cytometry. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9868 mL	4.9339 mL	9.8679 mL
5 mM	0.1974 mL	0.9868 mL	1.9736 mL
10 mM	0.0987 mL	0.4934 mL	0.9868 mL
50 mM	0.0197 mL	0.0987 mL	0.1974 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

Liu H, Wu D. In vivo Near-infrared Fluorescence Tumor Imaging Using DiR-loaded Nanocarriers. *Curr Drug Deliv.* 2016;13(1):40-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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