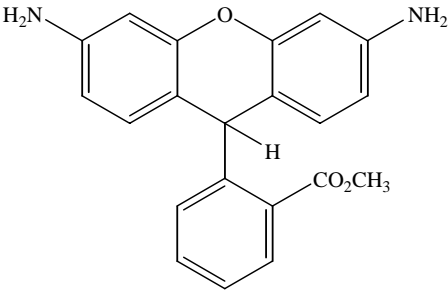


Instruction Manual

Catalog Number	PK-CA707-10055
Description	Dihydrorhodamine 123 is the reduced form of rhodamine 123 (Cat. No. PK-CA707-70010), which is a commonly used fluorescent mitochondrial dye. Dihydrorhodamine 123 itself is nonfluorescent, but it readily enters most of the cells and is oxidized by oxidative species or by cellular redox systems to the fluorescent rhodamine 123 that accumulates in mitochondrial membranes. Dihydrorhodamine 123 is useful for detecting reactive oxygen species including superoxide (in the presence of peroxidase or cytochrome c) and peroxynitrite. Also see dihydrorhodamine 123, dihydrochloride (Cat. No. PK-CA707-10056), a more stable and water soluble form of dihydrorhodamine 123.
Quantity	10 mg
Excitation / Emission Maxima	NA
Molecular Structure	 <p>The chemical structure shows a central carbon atom bonded to a hydrogen atom (H) and a methyl ester group (CO₂CH₃). This central carbon is also bonded to two benzene rings. Each benzene ring has an amino group (H₂N) at the para position relative to the central carbon. The two benzene rings are connected to each other via an oxygen atom (O) at their respective ortho positions, forming a spirocyclic system.</p>
Molecular Weight / Molecular Formula	346 Da; C ₂₁ H ₁₈ N ₂ O ₃
Purity	>97% (as determined by HPLC)
Appearance / Formulation / Solubility	Pinkish solid; soluble in DMF (at >10 mg/ml).
Storage & Stability	Store desiccated at -20°C (if possible under nitrogen or argon) and protect from light, especially when in solution.
Applications	NA
References	<ol style="list-style-type: none"> 1) J. Immunol. Meth. 178, 89(1995) 2) Eur. J. Biochem. 217, 973(1993) 3) Arc. Biochem. Biophys. 302, 348(1993) 4) Biochemistry 34, 3544(1995) 5) Free Rad. Biol Med. 16, 149(1994)
Caution	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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