

Rhodamine 123 *CAS 62669-70-9*

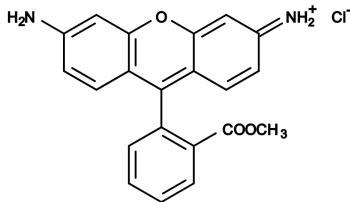
Catalog number: 22210

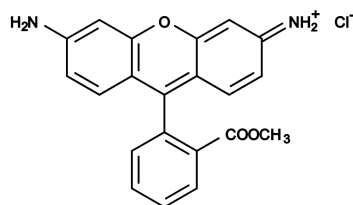
Unit size: 25 mg

Product Details

Storage Conditions	Freeze (<15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Orange solid
Molecular Weight	380.82
Soluble In	DMSO
Chemical Structure	

**Spectral Properties**

Excitation Wavelength	508 nm
Emission Wavelength	528 nm

Applications

Positively charged rhodamine dyes (such as rhodamine esters and rosamines) are selectively localized in mitochondria, thus they are widely used for labeling mitochondria of live cells. Among them rhodamine 123 is the most frequently used mitochondrial stain. It is utilized for staining a wide variety of cells, including plant cells and bacteria. Like JC-1, rhodamine 123 is also used for measuring mitochondrial membrane potential besides its selective mitochondrial staining. It is possible to use rhodamine 123 for detecting cancer cells since it is selectively localized in cancer cells, and its fluorescence is closely related to the alterations in mitochondrial distribution. Rhodamine 123 is commonly used in flow cytometry as functional reporter for Pgp. Recent reports indicate rhodamine 123 may also be a substrate of MRP1. Functional assays for MDR proteins are better prognostic indicators in cancer therapy than levels of MDR protein expression. The spectral properties of rhodamine 123 similar to those of FITC make the use of rhodamine 123 quite convenient as almost all fluorescence instruments are equipped with excitation source and filter set of FITC. Rhodamine 123 can be used in multiparameter analyses without fluorescence interference in combination with common protein labeling dyes such as PE-Cy5 and AMCA.