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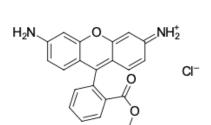
LumiTracker® Mito Rhodamine 123

http://www.lumiprobe.com/p/rhodamine-123-mitochondrial-dye

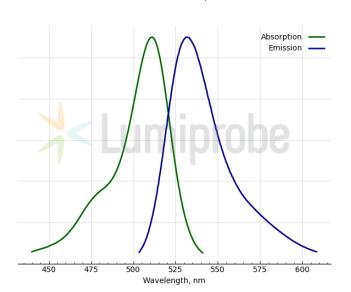
Rhodamine 123 (Rh123) is a cationic green-fluorescent xanthene dye used to monitor membrane polarization in mitochondria and bacteria in live cell assays.

The dye distributes according to the negative potential of the membrane. Loss of potential will result in loss of the dye and, therefore, the fluorescence intensity. Like <u>TMRE</u>, Rhodamine 123 can be used to study mitochondrial function changes and cell viability in response to stimuli or pharmaceuticals of interest.

Rhodamine 123 is also used as a tracer dye to determine the rate and direction of membrane transport.



Structure of Rh123



Absorbance and emission spectra of Rh123

General properties

Appearance: brown crystals

Mass spec M+ increment:345.30Molecular weight:380.83CAS number:62669-70-9Molecular formula: $C_{21}H_{17}CIN_2O_3$

Quality control: NMR ¹H and HPLC-MS (95+%)

Storage conditions: 24 months after receival at -20°C in the dark. Transportation: at room temperature

for up to 3 weeks. Desiccate.

Legal statement: This Product is offered and sold for research purposes only. It has not been tested for

safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food

or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm: 511 ϵ , L·mol $^{-1}$ ·cm $^{-1}$: 86000 Emission maximum, nm: 531 Fluorescence quantum yield: 0.98