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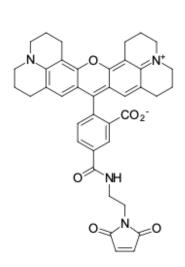
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ROX maleimide, 5-isomer

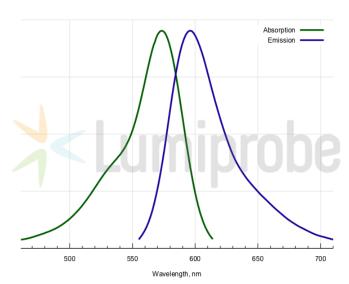
http://www.lumiprobe.com/p/rox-maleimide-5

ROX is a bright rhodamine dye with emission maximum around 580 nm. It is widely used for the labeling of biomolecules. As other rhodamine dyes, it comes as two isomers, 5-ROX and 6-ROX. Although these isomers have almost identical spectral properties, they need to be separated to avoid doubling of labeled products on HPLC or electrophoresis.

This derivative contains thiol-reactive maleimide moiety for the attachment of ROX fluorophore to SH groups, such as cystein residues in proteins and peptides.



Structure of 5-ROX maleimide



Absorption and emission spectra of ROX

General properties

Appearance: red powder Mass spec M+ increment: 656.3 Molecular weight: 656.73 Molecular formula: $C_{39}H_{36}N_4O_6$

Solubility: good in DMSO, DMF

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

Storage conditions: Storage: 12 months after receival at -20°C in the dark. Transportation: at room

temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.

Spectral properties

Excitation/absorption maximum, nm: 570 ϵ , L·mol $^{-1}$ ·cm $^{-1}$: 93000 Emission maximum, nm: 591 Fluorescence quantum yield: 1.00 CF_{260} : 0.62 CF_{280} : 0.49