

**Rhodamine aldehyde [5-TAMRA aldehyde]**Catalog number: 9005  
Unit size: 5 mg**Product Details**

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

**Chemical Properties**

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Appearance	Solid
Soluble In	DMSO

**Spectral Properties**

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Excitation Wavelength	552 nm
Emission Wavelength	578 nm

**Applications**

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Rhodamine aldehyde is a reactive fluorescent dye that can react with an amine, hydrazine or hydroxylamine. Aldehyde group is reactive toward amines, hydrazide or hydroxylamine groups from pH 5-9. Unlike amine reactive succinimidyl ester group (NHS), aldehyde can react with N-terminal amine groups at acidic pH, a condition sometimes required for certain bioconjugation reactions. Aldehyde reacts with amine group to form an intermediate Schiff bond. Further reduction with hydride will form a stable C-N bond. Reaction between aldehyde and other groups allows site-specific conjugation and labeling of fluorescein dyes to desired position on targeted molecules. Conjugated rhodamine dye can be easily detected by a common fluorescence instrument under TRITC or Cy3 channel.