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Product Data Sheet

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1. Product Information

- Product Name : TAMRA Isothiocyanate
- Catalog Number : KWI1020
- Packing Unit : 25 mg
- Appearance : Red Solid
- Storage Conditions : Protect from Light at -20 ℃

2. Additional Information

- Fluorophore Label : TAMRA
- Reactive Group : Isothiocyanate
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula : $C_{25}H_{23}N_3O_3S$
- Molecular Weight : 446 g/mol
- Excitation $_{Max}$: 543 ± 3 nm
- Emission $_{Max}$: 575 ± 4 nm
- Extinction Coefficient : ≥ 16,000 /cm·M

3. Description

TAMRA Isothiocyanate is a reactive form of bright yellow dye that used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 553/575 nm, similar to that of DyLight 549, ATTO 550 and Cy 3. TAMRA might be excited using 543 or 546 nm laser line and displays good optical property. Isothiocyanates are moderately reactive but quite stable in water and most organic solvents. Isothiocyanates react to primary amine to form reasonably stable thiourea linkage. Whereas labeling of protein with NHS esters can typically be done at pH 8.3, conjugation for isothiocyanates usually require pH above 9. We offer TAMRA isothiocyanate for labeling of antibodies, peptides, proteins and oligonucleotide labeling and automated DNA sequencing applications.