

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : TAMRA Sulfo NHS ester
- Catalog Number : KWSN1025
- Packing Unit : 25 mg
- Appearance : Red Solid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

• Fluorophore Label :	TAMRA
• Reactive Group :	Sulfo NHS ester
• Reactive Toward :	Primary amine on proteins and ligands, amine-modified oligonucleotides
• Molecular Formula :	$C_{29}H_{27}N_3O_{10}S$
• Molecular Weight :	609.6 g/mol
• Excitation _{Max} :	$554 \pm 3 \text{ nm}$
• Emission _{Max} :	$583 \pm 4 \text{ nm}$
• Extinction Coefficient :	\geq 60,000 /cm·M

3. Description

TAMRA Sulfo-NHS ester 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 543/575 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. Sulfo-NHS esters have higher water solubility than NHS esters, thus they do not need organic co-solvent and readily react with amine-modified oligonucleotides or amino groups of proteins, i.e. the ε-amino groups of lysine or the amine terminus of nucleotides to form a stable amide bond between dye and the biomolecule. We offer TAMRA Sulfo-NHS ester for labeling of antibodies, peptides, proteins and oligonucleotide labeling and automated DNA sequencing applications.

WARNING: Intended for research use only. This product is not intended or approved for human, diagnostics, therapeutic or veterinary use. Use of this product for human or animal testing is extremely hazardous and may result in disease, severe injury, or death. MATERIAL SAFETY DATA: Review the complete Material Safety Data Sheet before use Material Safety Data Sheet (MSDS), Certificate of Analysis (COA) and Technical Information are available at http://www.bioacts.com or upon request.