

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 552 Sulfo-NHS ester
- Catalog Number : PWSN1122
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Red Solid
- Storage Conditions : Protect from Light at -20 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 552
- Reactive Group : Sulfo-NHS ester
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{38}H_{47}N_3O_{13}S_3^-$
- Molecular Weight : 849.23 g/mol
- Excitation  $_{Max}$  :  $550 \pm 3$  nm
- Emission  $_{Max}$  :  $564 \pm 4$  nm
- Extinction Coefficient :  $\geq 136,000$  /cm·M

## 3. Description

Flamma® Fluors 552 Sulfo-NHS ester is a reactive form of bright yellow fluorescent dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 550/565 nm, similar to that of Alexa 555, DyLight 549, ATTO 550 and Cy3. Flamma 552 might be excited using 532, 543, 546 or 555 nm laser lines and displays excellent optical property. Flamma 552 dyes can be conjugated to low-abundance biomolecules with great sensitivity and high molar ratios, allowing sensitive detection. 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  $\epsilon$ -amino groups of lysine or the amine terminus of nucleotides to form a stable amide bond between dye and the biomolecule. We offer Flamma Fluors 552 Sulfo-NHS ester for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for cellular labeling and detection.