

# Product Data Sheet

Date of Issue: 5 Oct 2021

## 1. Product Information

- Product Name : Flamma® 496 NHS ester
- Catalog Number : CWA1001
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Yellow to Orange Solid
- Storage Conditions : Protect from Light at -20 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 496
- Reactive Group : NHS ester
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{25}H_{15}F_2NO_9$
- Molecular Weight : 511.4 g/mol
- Excitation<sub>Max</sub> :  $496 \pm 3$  nm
- Emission<sub>Max</sub> :  $520 \pm 4$  nm
- Extinction Coefficient :  $\geq 63,000$  /cm·M

## 3. Description

Flamma® Fluors 496 NHS ester is a reactive form of bright green dye induced from Fluorescein structure and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 496/516 nm, similar to that of Fluorescein. Flamma 496 might be excited using the 488 nm laser line and displays excellent optical property. Flamma 496 can be conjugated to low-abundance biomolecules with great sensitivity and high molar ratios, allowing sensitive detection. NHS esters 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 chemically stable amide bond between dye and the biomolecule. We offer Flamma Fluors 496 dye for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for cellular labeling and detection.