

Product Data Sheet

Date of Issue: 5 Oct 2021

1. Product Information

- Product Name : FSD Fluor™ 647 NHS ester
- Catalog Number : KOSC1315
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Blue Liquid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

- Fluorophore Label : FSD Fluor™ 647
- Reactive Group : NHS ester
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Weight : 1254.86 g/mol
- Excitation_{Max} : 651 ± 3 nm
- Emission_{Max} : 667 ± 4 nm
- Extinction Coefficient : ≥ 217,000 /cm·M

3. Description

FSD Fluor™ 647 NHS ester is the new generation of amine reactive far-red fluorescent dye developed by BioActs' cutting-edge technology displaying excellent optical property comparing to spectrally similar dyes. The fluorescence intensity after binding to biomolecules such as antibody, nucleotide, and protein is also excellent, thus FSD Fluor™ series is ideal for various biochemical and biological analytical applications. FSD dye is conceivably the best existent dye for single-molecular detection of bioconjugates for fluorescence correlation spectroscopy and for fluorescence polarization measurements. The maxima of Ex/Em values are at 651/667 nm, similar to that of Alexa 647, Cy5 and DyLight 650. FSD 647 might be excited using 593 or 633 nm laser lines and displays excellent optical property. FSD 647 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 ε-amino groups of lysine or the amine terminus of nucleotides to form a chemically stable amide bond between dye and the biomolecule. We offer FSD Fluor™ 647 NHS ester for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for cellular labeling and detection.