

BODIPY 581/591 NHS Ester

Cat #: B-CHM101

Size: 5 mg

Storage: Store at -20°C, protected from light.

Product Introduction

BODIPY 581/591 dye is a bright red fluorescent dye with excitation and emission properties similar to rhodamine red and AF 568. It has a high extinction coefficient and fluorescence quantum yield and is relatively insensitive to changes in solvent polarity and pH. Unlike highly water-soluble fluorescent groups such as AF 488 dye and fluorescein (FITC), BODIPY dyes possess unique hydrophobic properties, making them suitable for staining lipids, membranes, and other lipophilic compounds. BODIPY 581/591 dye has a relatively long excited-state lifetime (typically 5 ns or longer) and can be used for fluorescence polarization-based measurements and multiphoton excitation with a large two-photon cross-section.

The NHS ester (or succinimidyl ester) of BODIPY 581/591 is the most commonly used tool for conjugating the dye to proteins or antibodies. NHS esters can be used to label primary amines (R-NH₂) of proteins, amine-modified oligonucleotides, and other amine-containing molecules. The resulting BODIPY 581/591 conjugates exhibit bright fluorescence, narrow emission bandwidth, and a relatively long excited-state lifetime, making them suitable for fluorescence polarization measurements and two-photon excitation (TPE) microscopy examinations.

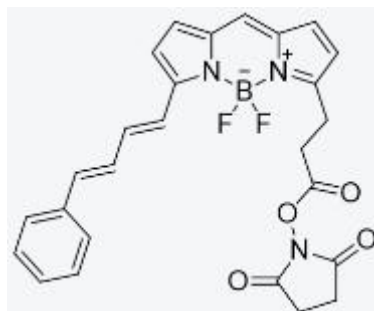
Product Properties

Formula: C₂₆H₂₂BF₂N₃O₄

MW: 489.28

Spectral properties: Ex / Em = 581/591 nm, ε = 136000

Structural formula:



Shipping and Storage

Storage conditions: Store at -15°C ~ -30°C protect from light.