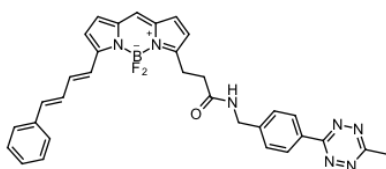


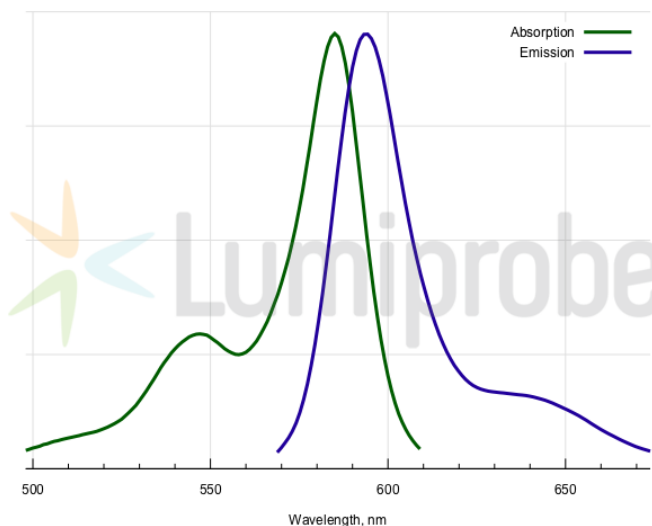
BDP 581/591 tetrazine

BDP 581/591 is a borondipyrromethene dye with red emission. The dye exhibits high emission quantum yield and molar extinction coefficient, relatively long fluorescence lifetime and two-photon cross section. Additionally, it can be used as an intracellular ROS sensor.

This tetrazine derivative allows to conjugate the fluorophore with various strained dienophiles like trans-cyclooctenes in a fast reaction called TCO-ligation.



Structure of BDP 581/591 tetrazine



Absorption and emission spectra of BDP 581/591

General properties

Appearance:	colorless solid
Mass spec M+ increment:	574.2
Molecular weight:	575.42
Molecular formula:	C ₃₂ H ₂₈ N ₇ BF ₂ O
Solubility:	well soluble in DMF, DMSO, dichloromethane, toluene
Quality control:	NMR ¹ H, HPLC-MS (95%)
Storage conditions:	Storage: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.
TN VED Code:	3204190000

Spectral properties

Excitation maximum, nm:	585
ε, L·mol ⁻¹ ·cm ⁻¹ :	104000
Emission maximum, nm:	594
Fluorescence quantum yield:	0.83
CF ₂₆₀ :	0.06
CF ₂₈₀ :	0.04