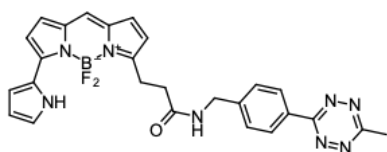


BDP 576/589 tetrazine

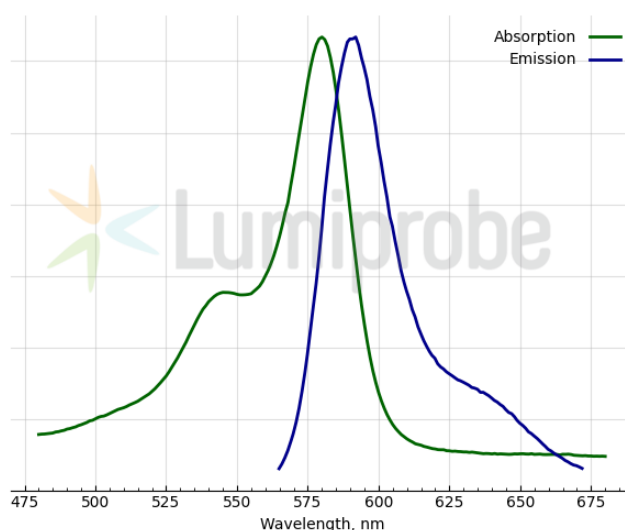
<http://www.lumiprobe.com/p/bdp-576-589-tetrazine>

Because of its relatively long excited-state lifetime (about 5 nanoseconds), BDP 576/589 dye can be used in various methods based on measuring fluorescence lifetime. Similarly to other dyes of the BDP family, BDP 576/589 has strong hydrophobic properties and is suitable for labeling non-polar and lipophilic biomolecules and their subsequent visualization by fluorescent microscopy, including two-photon microscopy.

This reagent is a tetrazine derivative that can be conjugated with various strained dienophiles such as *trans*-cyclooctenes and cyclopropenes. This reaction (TCO ligation) is considered to be one of the best bioconjugation reactions because it is very fast and selective in physiological conditions and does not require additional catalyzers, so it is not toxic *in vitro* and *in vivo*.



Structure of BDP 576/589 tetrazine



BDP 576/589 absorbance and emission spectra

General properties

Appearance:	dark colored solid
Mass spec M+ increment:	501.16
Molecular weight:	529.17
Molecular formula:	C ₂₆ H ₂₃ N ₈ BF ₂ O
Solubility:	good in polar organic solvents
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.

Spectral properties

Excitation/absorption maximum, nm:	580
ε, L·mol ⁻¹ ·cm ⁻¹ :	98000
Emission maximum, nm:	592
Fluorescence quantum yield:	0.13
CF ₂₆₀ :	0.32
CF ₂₈₀ :	0.35