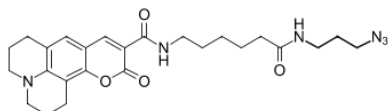


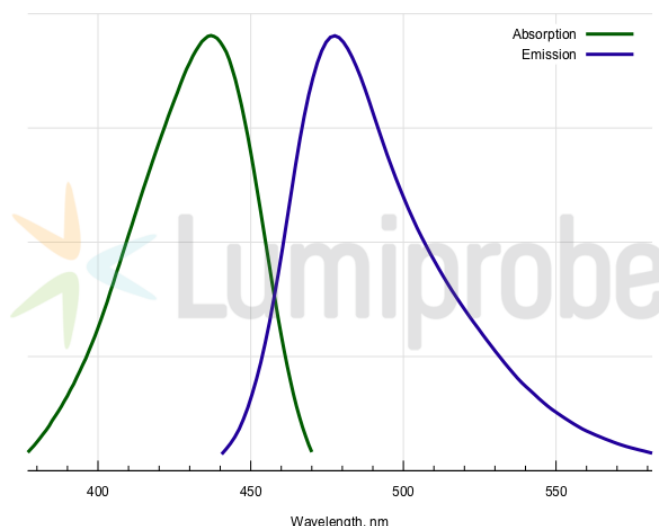
Coumarin 343 X azide

Coumarin 343 is a blue emitting fluorophore with an emission maximum around 480 nm. This dye forms a FRET pair with fluorescein, and can harvest blue light energy for the subsequent transfer to other fluorophores.

The azide derivative can be conjugated with alkynes in a copper-catalyzed and copper-free Click chemistry reactions. The molecule contains a long aminohexanoyl linker that provides separation between the dye, and the azide function.



Structure of Coumarin 343 X azide



Absorption and emission spectra of Coumarin 343

General properties

Appearance: yellow solid

Mass spec 480.3

M+
increment:

Molecular weight: 480.56

Molecular formula: C₂₅H₃₂N₆O₄

IUPAC name: 5-[[6-(3-Azidopropylamino)-6-oxohexylamino]carbonyl]-3-oxa-13-azatetracyclo[7.7.1.0.2,7.0.13,17]heptadeca-1,5,7,9(17)-tetraen-4-one

Solubility: good in DMF, DMSO

Quality control: NMR ¹H, 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: 437

ε, L·mol⁻¹·cm⁻¹: 39000

Emission maximum, nm: 477

Fluorescence quantum yield: 0.63

CF₂₆₀: 0.29

CF₂₈₀: 0.24