

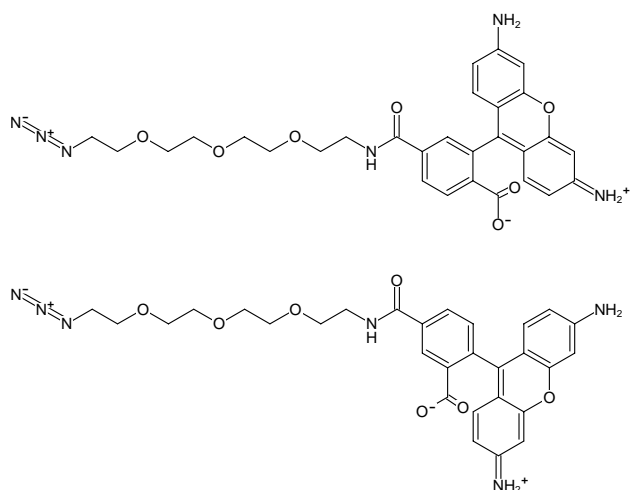


5/6-Carboxyrhodamine 110-PEG₃-Azide

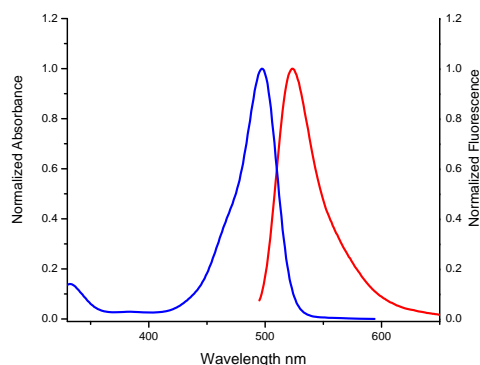
Abs/Em = 501/525 nm

Azide-Fluor 488

Cat. No.	Amount
CLK-AZ105-1	1 mg
CLK-AZ105-5	5 x 1 mg
CLK-AZ105-25	25 mg



Structural formula of 5/6-Carboxyrhodamine 110-PEG₃-Azide



excitation and emission spectrum of 5/6-Carboxyrhodamine 110

For research use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at -20 °C

Shelf Life: 12 months after date of delivery

Molecular Formula: C₂₉H₃₀N₆O₇

Molecular Weight: 574.59 g/mol

Purity: > 90 % (HPLC)

Form: dark red solid

Solubility: DMF, DMSO, MeOH

Spectroscopic Properties: λ_{abs} 501 nm; λ_{em} 525 nm;
ε 74.0 L mmol⁻¹ cm⁻¹ (in MeOH)

Description:

With excitation maximum at 501 nm, the azide - carboxyrhodamine 110 conjugate is an excellent match to the intense 488 nm spectral line of the argon ion laser commonly used in many confocal laser-scanning microscopes. Carboxyrhodamine 110-PEG₃-azide is an excellent green fluorescent rhodamine dye. The conjugate has better solubility than the parent dye carboxyrhodamine and its long PEG spacer should reduce any steric effect of the dye on the molecule to be labelled. Carboxyrhodamine 110 and its derivatives are, in general, significantly more photostable than any other known green fluorescent dyes including Alexa 488. In addition, the fluorescence of the azide-PEG₄-carboxyrhodamine 110 conjugate is completely insensitive to pH between 4 and 9. Unlike Alexa 488, which is readily degraded under alkaline condition, carboxyrhodamine 110 and its derivatives are highly stable under both acidic and basic conditions. As a result, carboxyrhodamine 110 and its derivatives are superior alternatives to other green fluorescent dyes.

Selected References:

Shieh *et al.* (2014) Imaging bacterial peptidoglycan with near-infrared fluorogenic azide probes. *Proc. Natl. Acad. Sci. USA* **111** (15):5456.