

Data Sheet (30.05.2014)

5-TAMRA Azide

5-Carboxytetramethylrhodamine Azide

Click Chemistry

Cat.-No.	Amount
mi-C1008S	1 mg
mi-C1008M	5 mg

Only for *in vitro* use!

For research only!

Molecular formula: C₂₈H₂₈N₆O₄

Molecular weight: 512.56 g/ mol

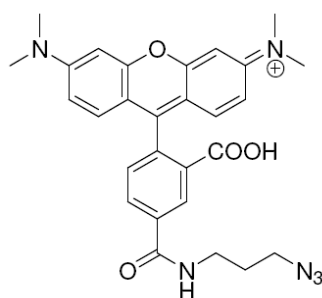
Purity: >95 %

Appearance: dark red solid

Solubility: DMSO, DMF, MeOH

Storage conditions: store at -20 °C

Structure

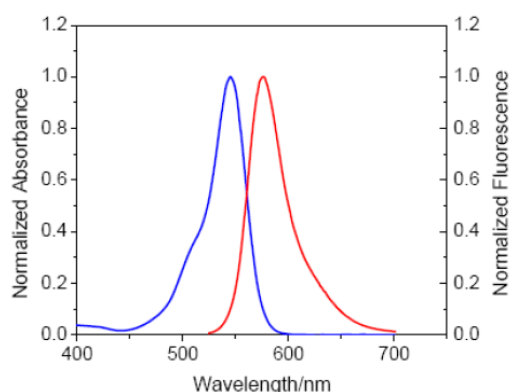


Spectroscopic data

Excitation maximum: Ex = 546 nm

Emission maximum: Em = 579 nm

Extinction coefficient: 91000 cm⁻¹ M⁻¹



Excitation and emission spectrum of 5-TAMRA

Description

The Click reaction is a copper(I)-catalyzed azide-alkyne cycloaddition that permits DNA labeling with very high efficiency. Alkyne-modified DNA can be generated by PCR using alkyne-containing nucleotides (mi-N300X). These alkyne groups allow the attachment of fluorescent and non-fluorescent azides to the PCR product by click chemistry (mi-Click Chemistry Manual, mi-C1101 CuBr, mi-C1102 TBTA-Ligand, mi-C1103 DMSO/t-Butanol Solvent). Custom synthesized oligos which are already alkyne-modified can be ordered from metabion and can be labeled with the marker azides as well.

References

Angew. Chem. Int. Ed. **2008**, *47*, 3442 –3444; *Angew. Chem. Int. Ed.* **2008**, *47*, 8350-8358.