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5-TAMRA PICOLYL AZIDE

SKU: CCT-1254



DESCRIPTION

AZDye™ 594 Picolyl Azide is an advanced fluorescent probe that incorporates a copper-chelating motif to raise the effective concentration of Cu(I) at the reaction site to boost the efficiency of the CuAAC reaction, resulting in a faster and more biocompatible CuAAC labeling. Up to 40-fold increase of signal intensity, compared to conventional azides, was reported (see Selected References).

In addition, the use picolyl azides instead of conventional azides allows for at least a tenfold reduction in the concentration of the copper catalyst without sacrificing the efficiency of labeling, significantly improving biocompatibility of CuAAC labeling protocol.

In summary, the introduction of a copper-chelating motif into azide probe leads to a substantial increase in the sensitivity and reduced cell toxicity of CuAAC detection alkyne-tagged biomolecules. This will be of special value for the detection of low abundance targets or living system imaging.

5-TAMRA (also known as TAMRA, isomer 5) is the red-fluorescent probe that is compatible with various excitation sources including mercury arc, tungsten and xenon arc lamps, the 544 nm line of the Helium-Neon laser and the 532 nm green laser line.

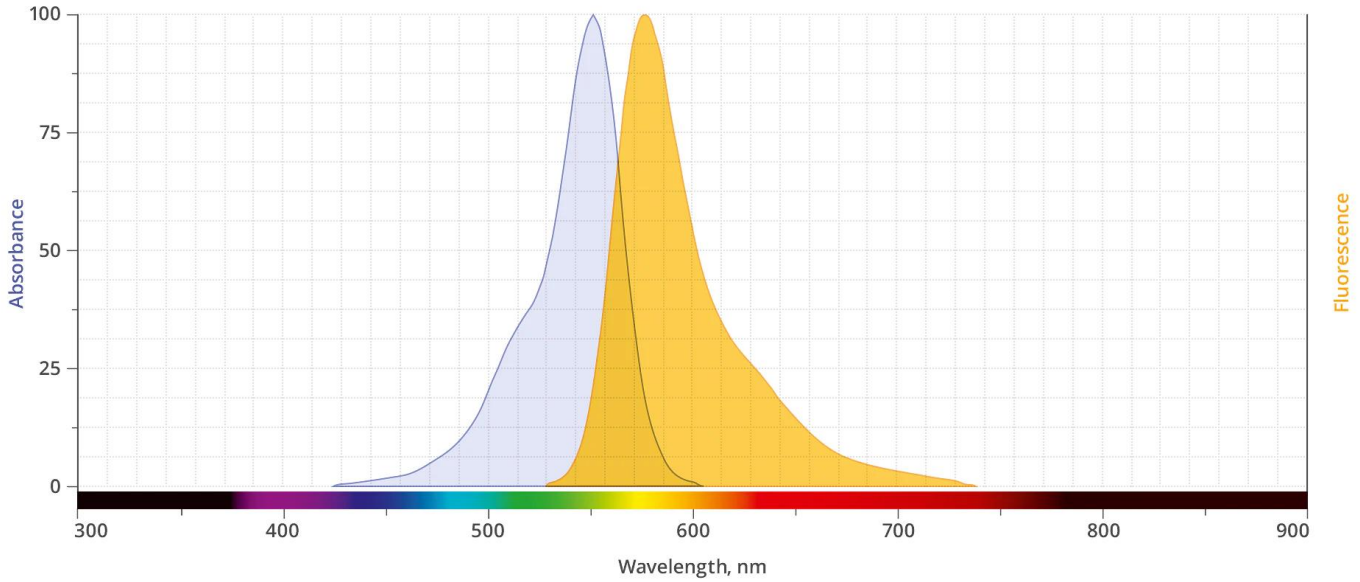
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SPECIFICATIONS

CAS Number	N/A
Molecular Weight	808.89
Appearance	Dark red amorphous solid
Extinction Coefficient	91,000
Purity	>95% (HPLC)
Unit Size	1 mg, 5 mg, 25 mg
Solubility	DMSO, DMF
Storage Instructions	-20°C. Desiccate
Spectrally Similar Dyes	Alexa Fluor® 546, Atto™ 543, CF® 543 Dye
Excitation/Emission Maximum	553/575 nm
Shipping Conditions	Ambient temperature
Shipping Instructions	Ambient temperature

ABS/EM SPECTRA



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SELECTED REFERENCES

1. Jiang, H., *et al.* (2014). Monitoring Dynamic Glycosylation in Vivo Using Supersensitive Click Chemistry. *Bioconjugate Chem.,*, **25**, 698-706. [PubMed]
2. Uttamapinant, C., *et al*. (2012). Fast, Cell-Compatible Click Chemistry with Copper-Chelating Azides for Biomolecular Labeling. *Angew. Chem. Int. Ed,.*, **51**, 5852-56. [PubMed]
3. Gaebler, A.,*et al.* (2016). A highly sensitive protocol for microscopy of alkyne lipids and fluorescently tagged or immunostained proteins. *J. Lipid. Res.,* **57**, 1934-47. [PubMed]

DOCUMENTS

- Safety Data Sheet
- Download CoA
- Datasheet

GALLERY IMAGES



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