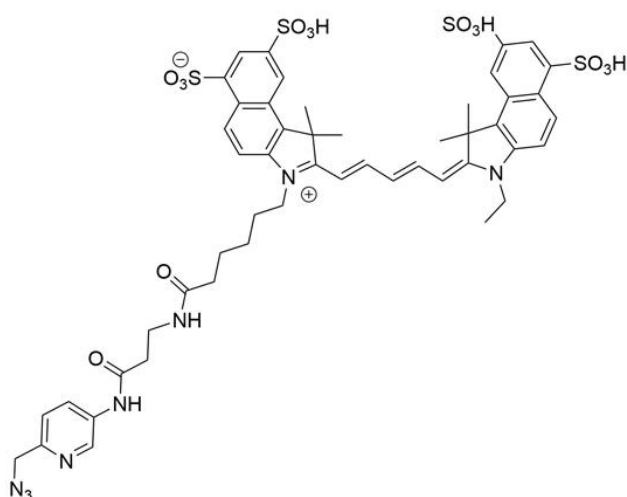




CY5.5 PICOLYL AZIDE

SKU: CCT-1182



DESCRIPTION

Cy5.5 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

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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.

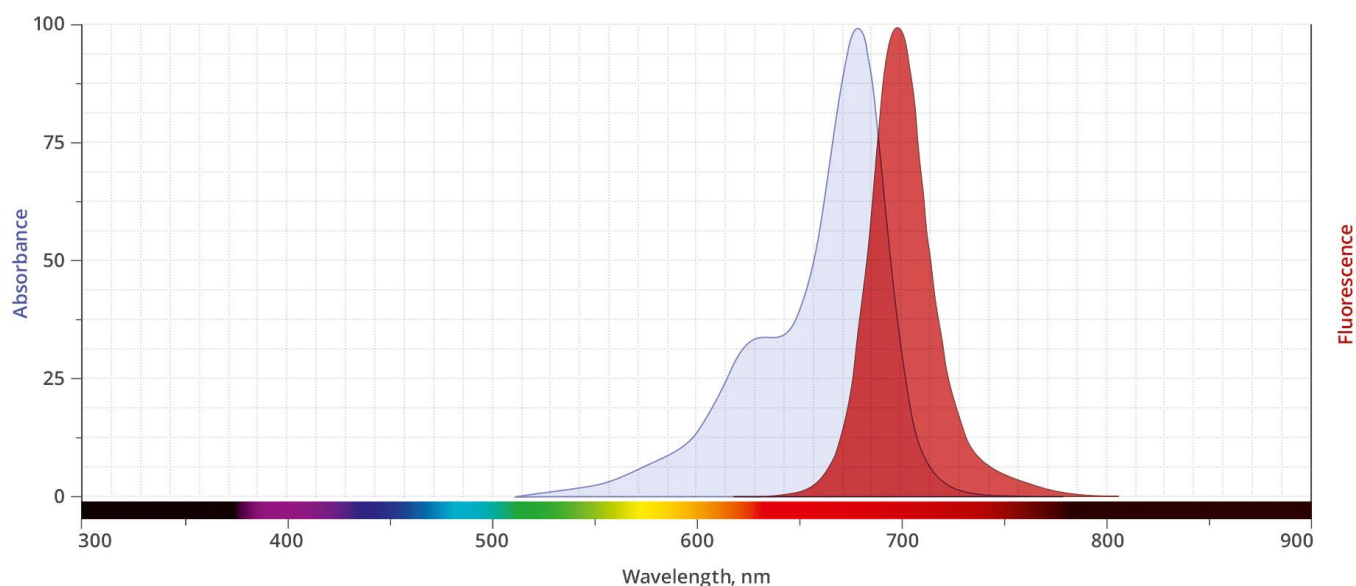
Cy5.5 Picolyl Azide is a bright and photostable near-IR probe that spectrally similar to Alexa Fluor® 680, DyLight® 680, and IRDye® 680 dye. The fluorescence of Cy5.5 dye is pH insensitive from pH 4 to pH 10 and produces minimal autofluorescence of biological specimens in this region of the spectrum. Fluorescence of this long-wavelength Cyanine dye is not visible to the human eye but is readily detected by most imaging systems.

SPECIFICATIONS

CAS Number	N/A
Molecular Weight	1119.26
Appearance	Blue solid
Extinction Coefficient	190,000
Purity	>95% (HPLC)
Unit Size	1 mg, 5 mg, 25mg
Solubility	Water, DMSO, DMF
Storage Instructions	-20°C. Desiccate
Spectrally Similar Dyes	Alexa Fluor® 680, IRDye® 680RD, DyLight® 680
Excitation/Emission Maximum	678/694 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

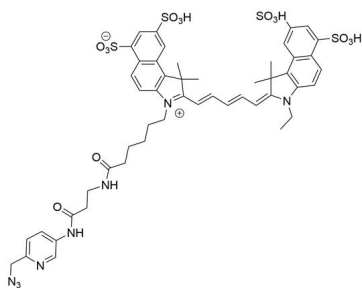
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www.vectorlabs.com

Email: customerservice@vectorlabs.com

Telephone: [\(650\) 697-3600](tel:(650)697-3600)



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