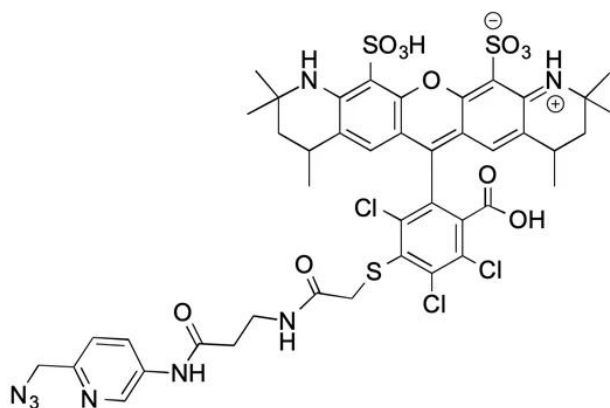




Email: customerservice@vectorlabs.com

Telephone: [\(650\) 697-3600](tel:6506973600)

SKU: CCT-1284



AZDye™ 546 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.

AZDye™ 546 is water-soluble, and pH-insensitive from pH 4 to pH 10 orange-fluorescent dye with absorption and emission maxima at 554 and 570 nm, respectively. It can be used with the

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

AZDye 546 Picolyl Azide

<https://vectorlabs.com/products/azdye-546-picolyl-azide/>



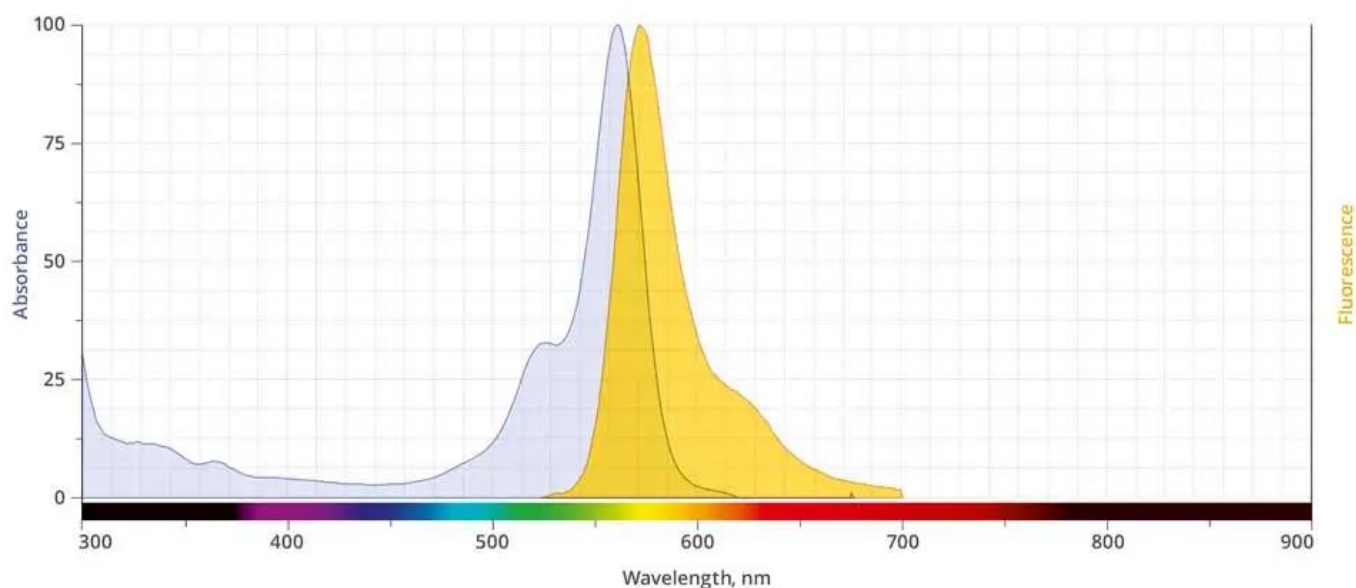
488 nm and 532 nm laser lines. AZDye™ 546 dye conjugated to a variety of antibodies, peptides, proteins, tracers, and amplification substrates often used for generation of stable signal in imaging and flow cytometry.

SPECIFICATIONS

CAS Number	N/A
Molecular Weight	1050.39 (protonated)
Appearance	Red solid
Extinction Coefficient	110,000
Purity	>95% (HPLC)
Unit Size	1 mg, 5 mg, 25 mg
Solubility	Water, DMSO, DMF
Storage Instructions	-20°C. Desiccate
Spectrally Similar Dyes	Alexa Fluor® 546, Atto™ 546, CF® 546
Laser Line	532 nm
Excitation/Emission Maximum	554/570 nm
Shipping Conditions	Ambient temperature
Shipping Instructions	Ambient temperature

ABS/EM SPECTRA

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.



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

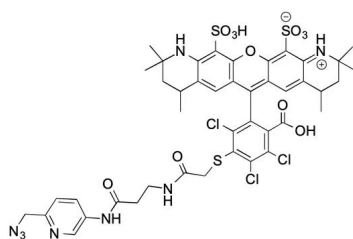
For research use only. Not intended for therapeutic or diagnostic use in animals or humans.



www.vectorlabs.com

Email: customerservice@vectorlabs.com

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



For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

[AZDye 546 Picolyl Azide](https://vectorlabs.com/products/azdye-546-picolyl-azide/)

<https://vectorlabs.com/products/azdye-546-picolyl-azide/>