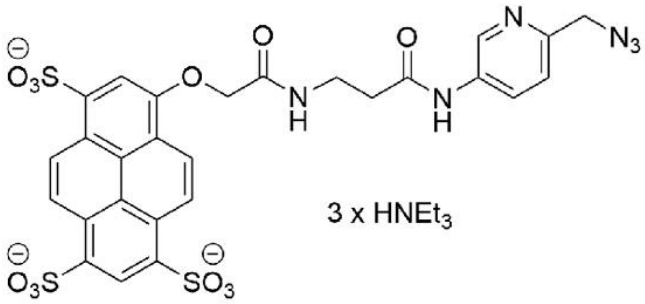
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

AZDYE 405 PICOLYL AZIDE

SKU: CCT-1308



DESCRIPTION

AZDye™ 405 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™ 405 is structurally similar and spectrally is almost identical to DyLight® 405, Alexa Fluor® 405, CF® 405S Dye, or any other sulfonated pyrene based fluorescent dyes.

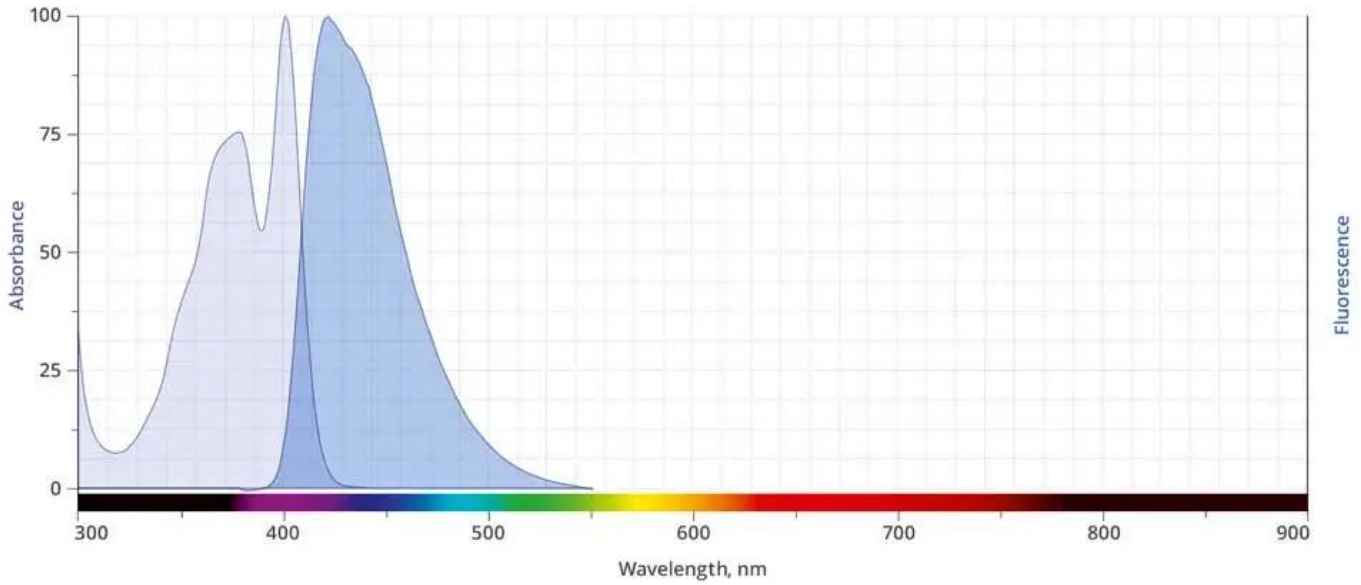
For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

SPECIFICATIONS

CAS Number	N/A
Molecular Weight	718.68 (protonated) 1022.26 (triethylammonium salt)
Appearance	Yellow solid
Extinction Coefficient	35,000
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® 405, CF® 405, Cascade Blue®, DyLight® 405
Laser Line	405 nm
Excitation/Emission Maximum	402/424 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.

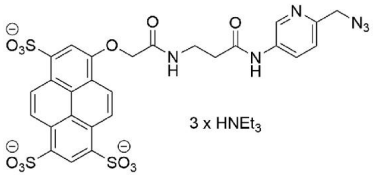
SELECTED REFERENCES

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.