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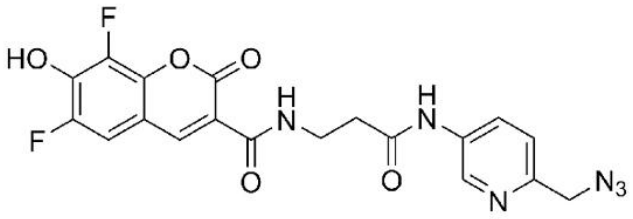
PB PICOLYL AZIDE

SKU: CCT-1413



DESCRIPTION

PB 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.

PB (structurally equivalent to Pacific Blue® Dye) is a moderately photostable, blue-fluorescent probe optimally excited by the 405 nm laser line. It is routinely used for generation of stable signal in imaging and flow cytometry. The brightness and photostability of blue dyes are best suited to direct imaging of high-abundance targets.

Pacific Blue® Dye is a registered trademark of Thermo Fisher Scientific.

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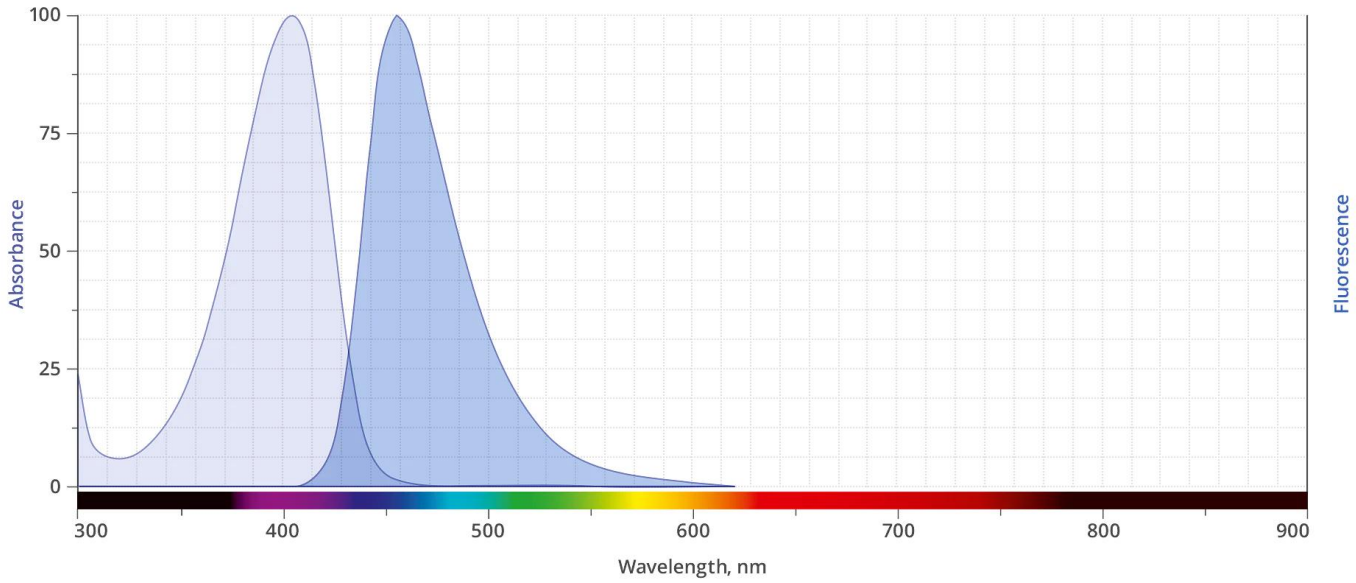
SPECIFICATIONS

CAS Number	N/A
Molecular Weight	444.35
Appearance	Yellow amorphous solid
Extinction Coefficient	30,000
Purity	>95% (HPLC)
Unit Size	1 mg, 5 mg, 25 mg
Solubility	DMSO, DMF
Storage Instructions	-20°C. Desiccate
Spectrally Similar Dyes	Alexa Fluor® 405, CF® 405, Pacific Blue®, DyLight® 405
Excitation/Emission Maximum	416/451 nm
Shipping Conditions	Ambient temperature
Shipping Instructions	Ambient temperature

ABS/EM SPECTRA



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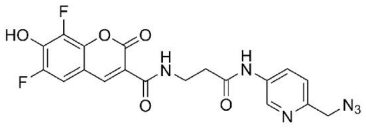
SELECTED REFERENCES

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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