

FT-AYH9B1

Advion Interchim

FluoProbes AF488 Picolyl Azide

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.

Product Description

Name :	FluoProbes AF488 Picolyl Azide		
Catalog Number :	FP-AYH9B1, 1mg	FP-AYH9B2, 5mg	FP-AYH9B3, 25mg
Molecular Formula:	$C_{30}H_{24}N_8O_{11}S_2$		Θ
MW:	736.69 (protonated)		H_2N H_2N H_2N H_2N H_2N H_2N H_2N H_2N H_2 H_2N H_2
Solubility:	DMSO, DMF, MeOH, Water		
$\lambda_{exc./em.}$	494 / 517 nm		Соон
Emax	73,000 M ⁻¹ cm ⁻¹		HN C
Storage :	-20°C. Protect from lig	ght and moisture	ÚN Ö
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Directions for use

FluoProbes AF488 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.

The absorption/emission spectra is a perfect match to spectra of many other fluorescent dyes based on sulfonated rhodamine 110 core.

Protocol may be found in the litterature.

Bibliographic References

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- Jiang, H., et al. (2014). Monitoring Dynamic Glycosylation in Vivo Using Supersensitive Click Chemistry. Bioconjugate Chem., 25, 698-706
- Uttamapinant, C., et al. (2012). Fast, Cell-Compatible Click Chemistry with Copper-Chelating Azides for Biomolecular Labeling. Angew. Chem. Int. Ed,., 51, 5852-56
- 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

Related items

• CuSO4 5H2O, 13495A

DMSO anhydraous, FP-JW7390

Ordering information

Catalog size quantities and prices may be found at <u>http://www.interchim.com</u>. Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : $FluoProbes^{\text{(8)}}$ / Interchim; Hotline : +33(0)4 70 03 73 06 **Disclaimer :** Materials from $FluoProbes^{\text{(8)}}$ are sold **for research use only**, and are not intended for food, drug, household, or cosmetic use. $FluoProbes^{\text{(8)}}$ is not liable for any damage resulting from handling or contact with this product.