

Azide FluoProbes labels

Azide-Fluoprobes® are great fluorescent agents for labeling alkyne-containing molecules

Product Information

FluoProbes - azide Product cat.number	t MW (g·mol ⁻¹)	$\lambda_{\rm exc} \setminus \lambda_{\rm em}$. max. (nm)	mol. abs. (M ⁻¹ cm ⁻¹)	Comment
6-FAM - Azide FP-IOI491, 10 mg	458.42	494/520	75 000	• Pure 6-isomer.
5-FAM - Azide FP-IOI172, 10mg	458.42	494/520	75 000	Labeling reagent for Click chemistry. Pure 5-isomer.
5-ROX - Azide FP-FI2090, 1mg	616.71	570/591	82 000	 red-emitting rhodamine dye possessing high brightness and fluorescence quantum yield. Pure 5-isomer.

Introduction

Fluoprobes® azide conjugates suit labeling of aldehydes, and (upon EDC mediated activation) to carboxyls . It provides thus a privilegied method to conjugate a variety of biomolecules: glycoproteins, glycolipids, sialic acids and sugars, steroids, LDL and nucleic acids, but also N-terminal serine and threonine residues in proteins. For reducing sugars (containing free CHO groups), direct conjugation is possible, but most other applications require a reducing or an oxidising step to generate CHO groups from carboxyls or from cis-diols. See below 'Coupling carbohydrates or glycoproteins'. Lastly, hydrazide allows for useful conjugation of peptides/proteins through their carboxyl groups in specific applications (oriented conjugations).

Directions for use

Handling and Storage

Fluoprobes® - hydrazide is supplied as dry powder and is stable for at least one year. It is soluble in DMSO

Coupling carbohydrates or glycoproteins

Click chemistry is a versatile reaction that takes place between two groups: **azide** and **alkyne** (terminal acetylene). It can be used for the synthesis of a variety of conjugates of "partner" biomolecules, once each contains or has been graffted respectively with an azide or an alkyne group. Virtually any biomolecules can be involved, and labeling with small molecules, such as fluorescent dyes, biotin, and other groups can be readily achieved. Both azido and alkyne groups are nearly never encountered in natural biomolecules. Hence, the reaction is highly bioorthogonal and specific.





FT-IOI491

We recommend using the following general protocol for Click chemistry labeling of alkyne-modified oligonucleotides with azides. See <u>related products</u> for the auxiliary reagents.

Note: The protocol may be adjusted for peptides, proteins and any other molecules including labeling agents. Now, many labels are available already derivatized with azide (an even alkyne) -see also <u>related products</u> for Azide labels such as biotin and fluoprobes-. Furthermore, the azide and alkyne groups can be incorporated in peptide or oligonucleotides sequence during solid phase systhesis (see alkyne and azide building blocks). Finally, alkyne-modified oligonucleotides or peptides can be ordered on custom synthesis (please inquire)

Related products and documents

- Sulfo-NHS-Acetate #UP69380A
- SFB #M11771
- EDAC #52005A
- Reducers: DTT #<u>UP284250</u>, TCEP #<u>UP242214</u>
- Desalting: <u>UptiSpin</u> filters; Gelfiltration G-25 columns # <u>84874</u>; <u>CelluSep</u> dialysis tubings
- PBS buffer #UP68723A
- 5-DBCO-dUTP, <u>JO2460</u>
- FluoProbes labeling agents: See <u>selected most popular and remarkable labels</u>, <u>BioSciences catalogue p.B56</u>. Other derivatives are available, incl. amino-, carboxy-, <u>Succinimidyl-, Hydrazide-, Azide</u>, (strept)avidin, secondary antibodies, some specific probes such as Annexin, Phalloidin, ... or any other on custom labeling. FluoProbes® <u>Protein labeling Kits</u>

Fluorescent labeling of proteins to analyze in electrophoresis (2D-gel PAGE): NT-2D.

Ordering information

Catalogue size quantities and prices may be found at http://www.fluoprobes. Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask: Fluoprobes / Interchim; Hotline: +33(0)4 70 03 73 06

Disclaimer: Materials from FluoProbes® are sold **for research use only**, and are not intended for food, drug, household, or cosmetic use. FluoProbes® is not liable for any damage resulting from handling or contact with this product.