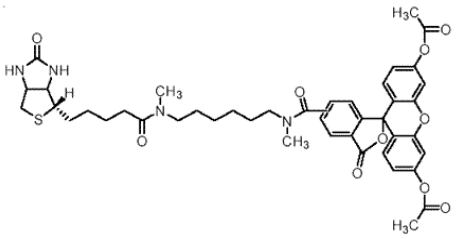
FT-AL667A

Fluorescein diacetate - Biotin

Cell organelle pH probe by directing the dye to where avidin-chimera proteins are located

Product Description

Name:	**Fluorescein diacetate – Biotin** (Flubi-2 diacetate, Flubida-2)
Catalog Number:	FP-AL667A 5 mg
Structure:	$C_{43}H_{48}N_4O_9S$
Molecular Weight:	MW= 812,93
Solubility:	DMSO or DMF
Absorption / Emission:	$\lambda_{exc}\backslash\lambda_{em}$ (pH 9, after hydrolysis) = 492/517 nm



Storage: -20°C Protect from light and moisture

Introduction

Fluorescein diacetate – Biotin has been used to detect pH at a specific site in a cell such as cell organelles by directing the probe to where avidin-chimera proteins are located. The probe is a conjugate of biotin and fluorescein diacetate, which is nonfluorescent until the probe has entered the cells and hydrolyzed by endoesterases. Fluorescein diacetate – Biotin is membrane-permeable and thus can be delivered into cells via simple incubation with the probe in a buffer.

Directions for use

Protocol

- To label the avidin-containing lumens of ER, Golgi, and MSGs, mix the cell-permeable Fluorescein diacetate – Biotin, ~2 mM with 1:1 with Pluronic F-127 (20% w/v in dry Me_2SO)
- Dilute to the desired final concentration with DMEM containing <2% fetal calf serum.
- Rinse cells with DMEM, loaded with 2-4 µM Fluorescein diacetate – Biotin dye for 4-6 h
- Chase with normal growth medium for 0-2 h (0 h of chase for Golgi measurements; >2 h of chase for MSG measurements) at 37 °C.

References

- **Wu M.** *et al*., Organelle pH studies using targeted avidin and fluorescein–biotin, *Chemistry & Biology*, Volume 7, Issue 3, **197-209 (2000)** Article

- **Wu M.** *et al*., Mechanisms of pH Regulation in the Regulated Secretory Pathway, *J. Biol. Chem*., 276: 33027 - 3303 (2001) Article

Technical and scientific information

Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- Pluronic F-127, 10% solution in sterile water , FP-379951
- Pluronic F-127, cell culture tested, FP-IT287A
- BCECF AM, FP-45440A
- pH Sensor III, JQ7890

Ordering information

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

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

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