Product Data Sheet

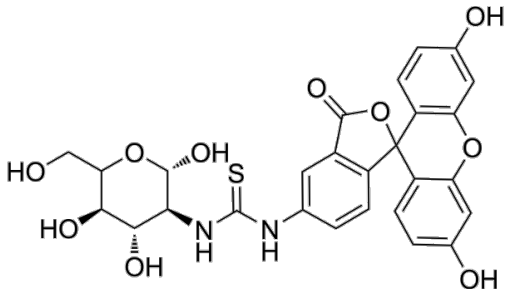
Product Name: FITC-D-Glucose
Cat. No.: GC79853

Chemical Properties

Cas. No.

Formula	$C_{27}H_{24}N_2O_{10}S$	M.Wt	568.55
Solubility	DMSO: 4 mg/mL (7.04 mM; Need ultrasonic)	Storage	Store at -20°C, protect from light
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

FITC-D-Glucose is a fluorescently labeled glucose derivative and an orally effective bacterial metabolic activity detection probe. FITC-D-Glucose is applicable to the research of cholera [1].

In Vivo, FITC-D-Glucose (0.1 mM; p.o.; single administration of 100 μL) labels metabolically active V. cholerae in adult mice. Studies show that the proportion of highly metabolically active cells in the ΔflhB mutant strain is 7 times that of the wild-type strain, while this proportion in the ΔflaA mutant strain is only 0.2 times that of the wild-type strain[1].

Caution: Product has not been fully validated for medical applications. For research use only.
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In Vitro, FITC-D-Glucose (1 μL in 10 mL Met-free MM medium; 30 min at 37 °C) labeling reveals that flhB mutant V. cholerae has 1.7-fold higher in vitro metabolic activity than wild-type, while flaA mutant has 0.6-fold lower in vitro metabolic activity than wild-type[1].

References:

[1]. Guozhong Chen, et al. Anti-σ28 factor FlgM secretion regulates Vibrio cholerae adaptability1 in adult mice through quorum sensing and methionine metabolism.

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