

Product Data Sheet

Product Name: FITC-D-Glucose

Cat. No.: GC79853

Chemical Properties

Cas. No.

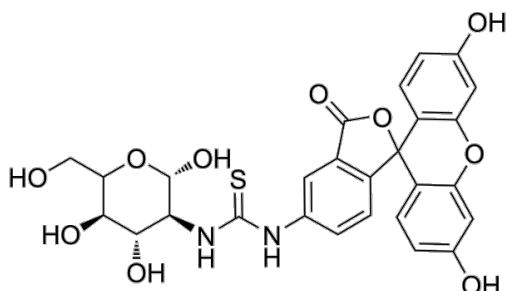
Formula $C_{27}H_{24}N_2O_{10}S$ M.Wt 568.55

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 Δ flhB mutant strain is 7 times that of the wild-type strain, while this proportion in the Δ flaA 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 μ L 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- σ 28 factor FlgM secretion regulates *Vibrio cholerae* adaptability¹ in adult mice through quorum sensing and methionine metabolism.

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