Fluorescein-5-isothiocyanate (FITC)

Catalog No.C12323 Batch:C1232303

Product Datasheet

Technical Data

Formula	$C_{21}H_{11}NO_5S$					
Molecular Weight	389.38	**CAS No.**	3326-32-7			
Solubility (25°C)*	In vitro	DMSO	78 mg/mL (200.31 mM)			
		Ethanol	10 mg/mL (25.68 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume \ Mass	1 mg	5 mg	10 mg
1 mM	2.5682 mL	12.8409 mL	25.6819 mL
5 mM	0.5136 mL	2.5682 mL	5.1364 mL
10 mM	0.2568 mL	1.2841 mL	2.5682 mL
50 mM	0.0514 mL	0.2568 mL	0.5136 mL

Biological Activity

Description	Fluorescein-5-isothiocyanate (FITC, Fluorescein isothiocyanate isomer I, 5-FITC) is a fluorescent probe capable of being conjugated to tissue and proteins.
In vitro	1.Protein Preparetion 1) In order to obtain the best labeling effect, please prepare the protein (antibody) concentration as 2 mg/mL. 2) The pH value of protein solution shall be 8.5±0.5. If the pH is lower than 8.0, 1m sodium bicarbonate shall be used for adjustment. 3) If the protein concentration is lower than 2mg/ml, the labeling efficiency will be greatly reduced. In order to obtain the best labeling efficiency, it is recommended that the final protein concentration range is 2-10 mg/mL. 4) The protein must be in the buffer without primary amine (such as Tris or glycine) and ammonium ion, otherwise the labeling efficiency will be affected. 2.Dye Preparation Add anhydrous DMSO into the vial of Fluorescein-5-isothiocyanate (FITC) to make a 10 mM stock solution. Mix well by pipetting or vortex. 3.Calculation of dye dosage The amount of this compound required for reaction depends on the amount of protein to be labeled, and the optimal molar ratio of it to protein is about 10. Example: assuming the required marker protein is 1 mL 2 mg/mL IgG (MW=150,000), use 1 mL DMSO dissolve 1 mg FITC, the required volume is 40 μL. 4.Run conjugation reaction 1) A good volume of freshly prepared 10 mg/mL FITC is slowly added to 0.5 mL protein sample. In solution, gently shake to mix, then centrifuge briefly to collect the sample at the bottom of the reaction tube. Don't mix well to prevent protein samples from denaturation and inactivation. 2) The reaction tubules were placed in a dark place and incubated gently at room temperature for 60 minutes at intervals.For 10-15 minutes, gently reverse the reaction tubules several times to fully mix the two reactants and raise the bar efficiency. 5.Purify the conjugation The following protocol is an example of dye-protein conjugate purification by using a Sephadex G-25 column. 1) Prepare Sephadex G-25 column according to the manufacture instruction. 2) Load the reaction mixture (From ""Run conjugation reaction"") to the top of the Sephadex G-25 column. 3) Add PBS (pH 7.2-7.4) as soon as the sample runs just below the top resin surface. 4) Add more PBS (pH 7.2-7.4) to the desired sample to complete the column purification. Combine the fractions that contain the desired dye-protein conjugate.

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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