Data Sheet (Cat.No.T212693)

TargetMol

FITC-Dextran (MW 70,000)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	FITC-Dextran (MW 70,000) is a fluorescent probe formed by the covalent coupling of fluorescein isothiocyanate (FITC) to branched dextran (Ex=495 nm; Em=525 nm). FITC-Dextran (MW 70,000) does not readily cross intact endothelial barriers and is widely used in scientific research as a macromolecular fluorescent tracer for studies of vascular permeability, intestinal barrier function, cellular endocytosis, and drug delivery systems.
Targets(IC50)	Others
In vitro	FITC-Dextran (MW 70,000) is a fluorescein isothiocyanate (FITC) dextran fluorescent probe (Ex=495 nm; Em=525 nm). It serves as a marker to reveal cell damage induced by heat shock and to study the early and late stages of apoptosis. Additionally, FITC-Dextran (MW 70,000) is used in research on cell permeability, such as evaluating blood-brain barrier permeability and the extent of its disruption. Storage instructions: protect from light.
In vivo	To assess intestinal barrier function: 1. Subject mice to a 4-hour fasting period. 2. Administer FITC-Dextran MW 70000 orally to the mice at a dosage of 0.6 mg/g. 3. Measure fluorescence intensity within 4 hours (Ex nm/Em 520 nm).

Solubility Information

Solubility	H2O: 80 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

Moumaris M, et al. Fluorescein isothiocyanate-dextran can track apoptosis and necrosis induced by heat shock of peripheral blood mononuclear cells and HeLa cells[J]. Open Biological Sciences Journal, 2015, 1(1).

Natarajan R, et al. Fluorescein Isothiocyanate (FITC)-Dextran Extravasation as a Measure of Blood-Brain Barrier Permeability. Curr Protoc Neurosci. 2017 Apr 10;79:9.58.1-9.58.15.

Eriksson I, et al. Analysis of Lysosomal pH by Flow Cytometry Using FITC-Dextran Loaded Cells. Methods Mol Biol. 2017;1594:179-189.

Okabayashi K, et al. Cdc42 activates paracellular transport in polarised submandibular gland cells. Arch Oral Biol. 2021 Dec;132:105276.

Yu W, et al. ACE2 contributes to the maintenance of mouse epithelial barrier function. Biochem Biophys Res Commun. 2020 Dec 17;533(4):1276-1282.

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