

FITC (SPM395): sc-65561

BACKGROUND

Fluorescein isothiocyanate (FITC) is a fluorochrome that is commonly used for indirect immunofluorescence and in forensics and serology to detect latent blood stains. Active molecules (such as antibodies) may be attached to FITC, allowing biologists to target the fluorophore to specific proteins or structures within cells. The fluorescence of FITC is very high; excitation occurs at 494 nm, while emission occurs at 525 nm. The isothiocyanate group (-N=C=S) replaces a hydrogen atom on the bottom ring of the FITC structure and is reactive with amine groups on proteins inside cells. FITC specifically inactivates the Na⁺- and K⁺-stimulated adenosine triphosphatase ((Na,K)-ATPase) at low concentrations.

REFERENCES

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8. Ohkubo, R., Tomita, M., Hotta, Y., Nagira, M. and Hayashi, M. 2004. Comparative study of flux of FITC-labeled Dextran 4000 on normal (iso)- and hyper-osmolarity in basal side in Caco-2 cell monolayers. *Drug Metab. Pharmacokinet.* 18: 404-408.
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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

FITC (SPM395) is a mouse monoclonal antibody raised against FITC.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of either PBS containing 1% stabilizer protein, and 0.02% sodium azide (for IF) or PBS containing 0.1% Gel and 0.1% sodium azide (for FCM).

APPLICATIONS

FITC (SPM395) is recommended for detection of FITC by flow cytometry (1 µg per 1 x 10⁶ cells).

Molecular Weight of FITC: 77 kDa.

SELECT PRODUCT CITATIONS

1. Chen, Y., Wang, G., Liu, Z., Wang, S. and Wang, Y. 2016. Glucocorticoids regulate the proliferation of T cells via miRNA-155 in septic shock. *Exp. Ther. Med.* 12: 3723-3728.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.