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


SOURCE

FITC (FITC-11) is a mouse monoclonal antibody raised against FITC conjugated to BSA.

PRODUCT

Each vial contains 200 µg IgG\(_1\) kappa light chain 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).

FITC (FITC-11) is available conjugated to agarose (sc-69872 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-69872 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-69872 PE), fluorescein (sc-69872 FITC), Alexa Fluor® 488 (sc-69872 AF488), Alexa Fluor® 546 (sc-69872 AF546), Alexa Fluor® 594 (sc-69872 AF594) or Alexa Fluor® 647 (sc-69872 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-69872 AF680) or Alexa Fluor® 790 (sc-69872 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

FITC (FITC-11) is recommended for detection of FITC by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of FITC: 77 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG\(_\kappa\) BP-HRP: sc-516102 or m-IgG\(_\kappa\) BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA

STORAGE

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

PROTOCOLS

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

RESEARCH USE

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