SANTA CRUZ BIOTECHNOLOGY, INC.

Su[fu] (F-4): sc-137014

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Su[fu] (for suppressor-of-fused) is a key negative regulator in the vertebrate hedgehog signaling pathway. Su[fu] interacts with genes encoding proteins in this signal transduction pathway. In *Drosophila,* Intracellular transduction of the hedgehog pathway involves the release of a large complex containing Su[fu]. Su[fu] inhibits the activity of the transcription factor Gli1 and interacts with Gli2, Gli3 and the serine/threonine kinase fused. Su[fu] is widely expressed in adult and embryonic tissues with higher expression in tissues patterned by hegdehog signaling. The Su[fu] gene locus maps to a region that is deleted in glioblastomas, prostate cancer, malignant melanoma and endometrial cancer.

CHROMOSOMAL LOCATION

Genetic locus: SUFU (human) mapping to 10q24.32; Sufu (mouse) mapping to 19 C3.

SOURCE

Su[fu] (F-4) is a mouse monoclonal antibody raised against amino acids 185-484 mapping at the C-terminus of suppressor of fused of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Su[fu] (F-4) is available conjugated to agarose (sc-137014 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137014 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137014 PE), fluorescein (sc-137014 FITC), Alexa Fluor® 488 (sc-137014 AF488), Alexa Fluor® 546 (sc-137014 AF546), Alexa Fluor® 594 (sc-137014 AF594) or Alexa Fluor® 647 (sc-137014 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137014 AF680) or Alexa Fluor® 790 (sc-137014 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Su[fu] (F-4) is recommended for detection of Su[fu] 54 kDa form (484 amino acid splice variant) of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Su[fu] siRNA (h): sc-36572, Su[fu] siRNA (m): sc-36573, Su[fu] shRNA Plasmid (h): sc-36572-SH, Su[fu] shRNA Plasmid (m): sc-36573-SH, Su[fu] shRNA (h) Lentiviral Particles: sc-36572-V and Su[fu] shRNA (m) Lentiviral Particles: sc-36573-V.

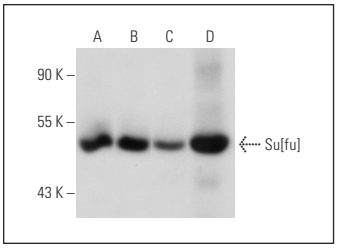
Molecular Weight of Su[fu]: 54 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, IMR-32 cell lysate: sc-2409 or C6 whole cell lysate: sc-364373.

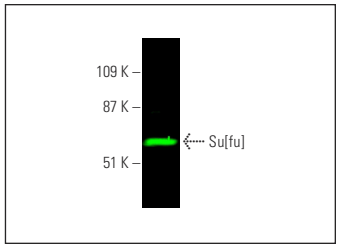
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Su[fu] (F-4): sc-137014. Western blot analysis of Su[fu] expression in IMR-32 (**A**), SK-N-SH (**B**), EOC 20 (**C**) and C6 (**D**) whole cell lysates.



Su[fu] (F-4): sc-137014. Near-infrared western blot analysis of Su[fu] expression in IMR-32 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Drannik, A., et al. 2017. Cerebrospinal fluid from patients with amyotrophic lateral sclerosis inhibits Sonic hedgehog function. PLoS ONE 12: e0171668.
2. Reyes-Ramos, A.M., et al. 2019. Mesenchymal cells support the oncogenicity and therapeutic response of the hedgehog pathway in triple-negative breast cancer. Cancers 11: 1522.
3. Tupone, M.G., et al. 2020. microRNA-378a-5p is a novel positive regulator of melanoma progression. Oncogenesis 9: 22.
4. Yoshida, S., et al. 2020. The novel ciliogenesis regulator DYRK2 governs Hedgehog signaling during mouse embryogenesis. Elife 9: e57381.
5. Fang, K., et al. 2022. SUFU suppresses ferroptosis sensitivity in breast cancer cells via Hippo/YAP pathway. iScience 25: 104618.

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.