

SUDD (B-3): sc-398232

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. SUDD, also known as RIOK3 (RIO kinase 3), is a 519 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Expressed in a variety of tissues, SUDD catalyzes the ATP-dependent phosphorylation of target proteins, thereby influencing signaling events throughout the cell. SUDD is expressed as two isoforms due to alternative splicing events.

REFERENCES

- Bairoch, A. and Claverie, J.M. 1988. Sequence patterns in protein kinases. *Nature* 331: 22.
- Hanks, S.K., et al. 1988. The protein kinase family: conserved features and deduced phylogeny of the catalytic domains. *Science* 241: 42-52.
- Hanks, S.K. and Quinn, A.M. 1991. Protein kinase catalytic domain sequence database: identification of conserved features of primary structure and classification of family members. *Methods Enzymol.* 200: 38-62.
- Anaya, P., et al. 1998. Isolation of the *Aspergillus nidulans* SUDD gene and its human homologue. *Gene* 211: 323-329.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603579. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.

CHROMOSOMAL LOCATION

Genetic locus: RIOK3 (human) mapping to 18q11.2; Riok3 (mouse) mapping to 18 A1.

SOURCE

SUDD (B-3) is a mouse monoclonal antibody raised against amino acids 54-255 mapping within an internal region of SUDD of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SUDD (B-3) is available conjugated to agarose (sc-398232 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398232 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398232 PE), fluorescein (sc-398232 FITC), Alexa Fluor® 488 (sc-398232 AF488), Alexa Fluor® 546 (sc-398232 AF546), Alexa Fluor® 594 (sc-398232 AF594) or Alexa Fluor® 647 (sc-398232 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398232 AF680) or Alexa Fluor® 790 (sc-398232 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SUDD (B-3) is recommended for detection of SUDD 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 SUDD siRNA (h): sc-76602, SUDD siRNA (m): sc-153915, SUDD shRNA Plasmid (h): sc-76602-SH, SUDD shRNA Plasmid (m): sc-153915-SH, SUDD shRNA (h) Lentiviral Particles: sc-76602-V and SUDD shRNA (m) Lentiviral Particles: sc-153915-V.

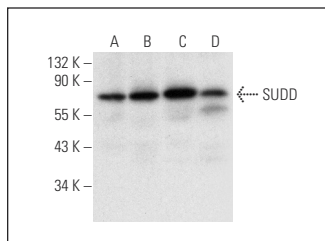
Molecular Weight of SUDD: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

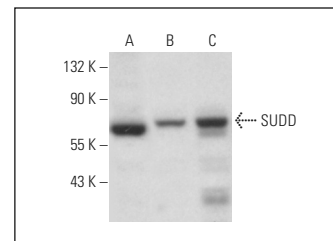
RECOMMENDED SUPPORT REAGENTS

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



SUDD (B-3): sc-398232. Western blot analysis of SUDD expression in HeLa (A), Hep G2 (B), K-562 (C) and MCF7 (D) whole cell lysates.



SUDD (B-3): sc-398232. Western blot analysis of SUDD expression in PC-3 (A), M1 (B) and J774.A1 (C) whole cell lysates.

STORAGE

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

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.

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