

SLM-2 (F-3): sc-374461

BACKGROUND

Sam 68 is phosphorylated on tyrosine and functions as a substrate for Src family tyrosine kinases during mitosis. Sam 68 also associates with several SH2 and SH3 domain-containing signaling proteins, such as GRB2 and PLC γ 1. Originally cloned as Ras GAP-associated p62, further investigations have shown that Sam 68 and Ras GAP-associated p62 are not antigenically related, nor are they encoded by the same gene. Like Sam 68, the Sam 68-like mammalian proteins, SLM-1 and SLM-2, demonstrate RNA binding activity. Also like Sam 68, SLM-1 is tyrosine phosphorylated and functions as an adapter protein for signaling molecules, including GRB2, PLC γ 1, Fyn and RasGAP. SLM-2 is not tyrosine phosphorylated, nor does it appear to associate with GRB2, PLC γ 1, Fyn or RasGAP, indicating that SLM-2 may not be an adapter protein for these proteins.

REFERENCES

1. Fumagalli, S., et al. 1994. A target for Src in mitosis. *Nature* 368: 871-874.
2. Maa, M.C., et al. 1994. A protein that is highly related to GTPase-activating protein-associated p62 complexes with phospholipase C γ . *Mol. Cell. Biol.* 14: 5466-5473.
3. Richard, S., et al. 1995. Association of p62, a multifunctional SH2- and SH3-domain-binding protein, with Src family tyrosine kinases, GRB2, and phospholipase C γ -1. *Mol. Cell. Biol.* 15: 186-197.
4. Lock, P., et al. 1996. The human p62 cDNA encodes Sam 68 and not the RasGAP-associated p62 protein. *Cell* 84: 23-24.

CHROMOSOMAL LOCATION

Genetic locus: KHDRBS3 (human) mapping to 8q24.23; Khdrbs3 (mouse) mapping to 15 D3.

SOURCE

SLM-2 (F-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 305-341 near the C-terminus of SLM-2 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG κ light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SLM-2 (F-3) is available conjugated to agarose (sc-374461 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374461 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374461 PE), fluorescein (sc-374461 FITC), Alexa Fluor[®] 488 (sc-374461 AF488), Alexa Fluor[®] 546 (sc-374461 AF546), Alexa Fluor[®] 594 (sc-374461 AF594) or Alexa Fluor[®] 647 (sc-374461 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374461 AF680) or Alexa Fluor[®] 790 (sc-374461 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374461 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

SLM-2 (F-3) is recommended for detection of SLM-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

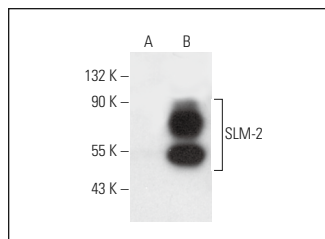
SLM-2 (F-3) is also recommended for detection of SLM-2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for SLM-2 siRNA (h): sc-40922, SLM-2 siRNA (m): sc-40923, SLM-2 shRNA Plasmid (h): sc-40922-SH, SLM-2 shRNA Plasmid (m): sc-40923-SH, SLM-2 shRNA (h) Lentiviral Particles: sc-40922-V and SLM-2 shRNA (m) Lentiviral Particles: sc-40923-V.

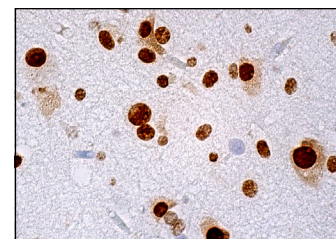
Molecular Weight of SLM-2: 55 kDa.

Positive Controls: SLM-2 (h): 293T Lysate: sc-115279.

DATA



SLM-2 (F-3): sc-374461. Western blot analysis of SLM-2 expression in non-transfected: sc-117752 (A) and human SLM-2 transfected: sc-115279 (B) 293T whole cell lysates.



SLM-2 (F-3): sc-374461. Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing nuclear staining of neuronal and glial cells.

SELECT PRODUCT CITATIONS

1. Ukai, S., et al. 2020. Molecular biological analysis of 5-FU-resistant gastric cancer organoids; KHDRBS3 contributes to the attainment of features of cancer stem cell. *Oncogene* 39: 7265-7278.
2. Ukai, S., et al. 2021. KHDRBS3 promotes multi-drug resistance and anchorage-independent growth in colorectal cancer. *Cancer Sci.* 112: 1196-1208.
3. Zhao, M., et al. 2023. KHDRBS3 accelerates glycolysis and promotes malignancy of hepatocellular carcinoma via upregulating 14-3-3 ζ . *Cancer Cell Int.* 23: 244.

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.