

SODD (C-12): sc-166581

BACKGROUND

The cytokine TNF (tumor necrosis factor) signals through the TNF-R1 receptor to activate various cellular pathways, including apoptosis and NF κ B activation. TNF binding induces receptor aggregation, resulting in the recruitment of TRADD, FADD, TRAF2 and RIP to the intracellular "death" domain of the receptor complex, which in turn activates signaling pathways including apoptosis and NF κ B activation. SODD, for silencer of death domains, was found to be associated with the intracellular "death" domain of TNF-R1 in the absence of TNF stimulation. TNF treatment results in the release of SODD from TNF-R1, allowing the recruitment of TRADD and TRAF2 to the receptor complex. Thus, SODD may play a role in preventing spontaneous signaling by death-domain receptors, in the absence of ligand.

REFERENCES

1. Tartaglia, L.A., et al. 1992. Two TNF receptors. *Immunol. Today* 13: 151-153.
2. Banner, D.W., et al. 1993. Crystal structure of the soluble human 55 kd TNF receptor-human TNF β complex: implications for TNF receptor activation. *Cell* 73: 431-445.
3. Tartaglia, L.A., et al. 1993. A novel domain within the 55 kd TNF receptor signals cell death. *Cell* 74: 845-853.
4. Hsu, H., et al. 1995. The TNF receptor 1-associated protein TRADD signals cell death and NF κ B activation. *Cell* 81: 495-504.
5. Hsu, H., et al. 1996. TRADD-TRAF2 and TRADD-FADD interactions define two distinct TNF receptor 1 signal transduction pathways. *Cell* 84: 299-308.
6. Hsu, H., et al. 1996. TNF-dependent recruitment of the protein kinase RIP to the TNF receptor-1 signaling complex. *Immunity* 4: 387-396.
7. Jiang, Y., et al. 1999. Prevention of constitutive TNF receptor 1 signaling by silencer of death domains. *Science* 283: 543-546.

CHROMOSOMAL LOCATION

Genetic locus: BAG4 (human) mapping to 8p11.23.

SOURCE

SODD (C-12) is a mouse monoclonal antibody raised against amino acids 158-457 mapping at the C-terminus of SODD of human origin.

PRODUCT

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

SODD (C-12) is available conjugated to agarose (sc-166581 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166581 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166581 PE), fluorescein (sc-166581 FITC), Alexa Fluor[®] 488 (sc-166581 AF488), Alexa Fluor[®] 546 (sc-166581 AF546), Alexa Fluor[®] 594 (sc-166581 AF594) or Alexa Fluor[®] 647 (sc-166581 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166581 AF680) or Alexa Fluor[®] 790 (sc-166581 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SODD (C-12) is recommended for detection of SODD of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SODD siRNA (h): sc-106839, SODD shRNA Plasmid (h): sc-106839-SH and SODD shRNA (h) Lentiviral Particles: sc-106839-V.

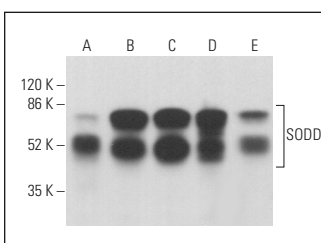
Molecular Weight of SODD: 49 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

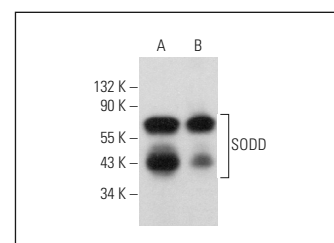
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



SODD (C-12): sc-166581. Western blot analysis of SODD expression in HeLa (A), THP-1 (B), MOLT-4 (C), Hep G2 (D) and HEK293 (E) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.



SODD (C-12): sc-166581. Western blot analysis of SODD expression in K-562 (A) and Ramos (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, R., et al. 2017. SODD promotes glucose uptake of colorectal cancer cells via AKT pathway. *Cell Biol. Int.* E-published.

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.