Datasheet for ABIN967741

anti-SOS1 antibody (AA 1-109)

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Overview

Quantity:	150 µg
Target:	SOS1
Binding Specificity:	AA 1-109
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SOS1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunoprecipitation (IP), Immunohistochemistry (IHC)

Product Details

Immunogen:	Mouse mSos1 aa. 1-109
Clone:	25-SOS1
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Dog (Canine), Human
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	SOS1
Alternative Name:	Sos1 (SOS1 Products)
Target Type:	Viral Protein
Background:	The Sos (son of sevenless) gene was originally identified in Drosophila, and two mammalian homologues (mSos1 and mSos2) were isolated from a mouse cDNA library. These two cDNAs predict proteins that are approximately 70% identical in their amino acid residues. Both mSos1 and mSos2 are expressed in a wide number of mouse embryonic and adult tissues as well as in several cell lines. The human homologues, hSos1 and hSos2 have also been isolated and show a very high degree of amino acid identity to the mouse genes (98% for Sos1). Sos1 has a predicted molecular weight of 150kDa, but the apparent molecular weight is closer to 170 kDa, presumably due to a high proline content. The mammalian Sos1 protein has a highly specific guanine nucleotide exchange activity toward p21ras . In EGF-stimulated cells, Sos1 interacts with the SH3 domains of GRB2, and GRB2 binds via its SH2 domain to tyrosine 1068 of the activated EGF receptor. Thus, GRB2 recruits Sos1 to the plasma membrane and enables it to activate the Ras signaling pathway by enhancing GTP loading on p21ras .
Molecular Weight:	170 kDa
Pathways:	RTK Signaling, TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Hepatitis C, Signaling Events mediated by VEGFR1 and VEGFR2, Signaling of Hepatocyte Growth Factor Receptor, BCR Signaling

Application Details

Comment:	Related Products: ABIN968539, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

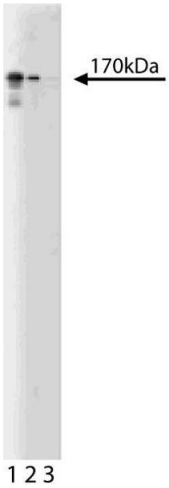
Furuta, Miura, Copeland, Shang, Oshima, Kamata: "Light Chain 3 associates with a Sos1 guanine nucleotide exchange factor: its significance in the Sos1-mediated Rac1 signaling leading to membrane ruffling." in: **Oncogene**, Vol. 21, Issue 46, pp. 7060-6, (2002) (PubMed).

Kardinal, Konkol, Lin, Eulitz, Schmidt, Estrov, Talpaz, Arlinghaus, Feller: "Chronic myelogenous leukemia blast cell proliferation is inhibited by peptides that disrupt Grb2-SoS complexes." in: **Blood**, Vol. 98, Issue 6, pp. 1773-81, (2001) (PubMed).

Salojin, Zhang, Meagher, Delovitch: "ZAP-70 is essential for the T cell antigen receptor-induced plasma membrane targeting of SOS and Vav in T cells." in: **The Journal of biological chemistry**, Vol. 275, Issue 8, pp. 5966-75, (2000) (PubMed).

Buday, Downward: "Epidermal growth factor regulates p21ras through the formation of a complex of receptor, Grb2 adapter protein, and Sos nucleotide exchange factor." in: **Cell**, Vol. 73 , Issue 3, pp. 611-20, (1993) (PubMed).

Egan, Giddings, Brooks, Buday, Sizeland, Weinberg: "Association of Sos Ras exchange protein with Grb2 is implicated in tyrosine kinase signal transduction and transformation." in: **Nature**, Vol. 363, Issue 6424, pp. 45-51, (1993) (PubMed).



Western Blotting

Image 1. Western blot analysis of Sos1 on PC12 lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-Sos1.

Image 2.