

Dok-3 (S-20): sc-10475

BACKGROUND

Dok-1, Dok-2 and Dok-3 are members of a class of "docking" proteins which contain multiple tyrosine residues and putative SH2 binding sites. Dok-1 associates with the Ras GTPase activating protein (Ras GAP) upon tyrosine phosphorylation. Dok-2 (also designated p56 Dok) has also been identified as a potential mediator of the effects of p210 Bcr-Abl. Dok-3 is an adapter involved in the recruitment of inhibitory molecules and is highly expressed in B cells and macrophages. Immunoreceptor-mediated cellular activation induces tyrosine phosphorylation of Dok-3. Upon phosphorylation, Dok-3 binds to 5' inositol phosphatase SHIP and the protein tyrosine kinase Csk. Dok-3 may play a significant role in the negative regulation of immunoreceptor signaling in hemopoietic cells.

REFERENCES

1. Wisniewski, D., et al. 1994. A 62 kDa tyrosine phosphoprotein constitutively present in primary chronic phase chronic myelogenous leukemia enriched lineage negative blast populations. *Leukemia* 8: 688-693.
2. Mayer, B.J., et al. 1995. Evidence that SH2 domains promote processive phosphorylation by protein-tyrosine kinases. *Curr. Biol.* 5: 296-305.
3. Carpino, N., et al. 1997. p62Dok: a constitutively tyrosine-phosphorylated, GAP-associated protein in chronic myelogenous leukemia progenitor cells. *Cell* 88: 197-204.
4. Yamanashi, Y. and Baltimore, D. 1997. Identification of the Abl- and Ras GAP-associated 62 kDa protein as a docking protein, Dok. *Cell* 88: 205-211.
5. Di Cristofano, A., et al. 1998. Molecular cloning and characterization of p56 Dok-2 defines a new family of Ras GAP-binding proteins. *J. Biol. Chem.* 273: 4827-4830.

CHROMOSOMAL LOCATION

Genetic locus: Dok3 (mouse) mapping to 13 B1.

SOURCE

Dok-3 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Dok-3 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10475 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Dok-3 (S-20) is recommended for detection of Dok-3 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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 Dok-3 siRNA (m): sc-35213, Dok-3 shRNA Plasmid (m): sc-35213-SH and Dok-3 shRNA (m) Lentiviral Particles: sc-35213-V.

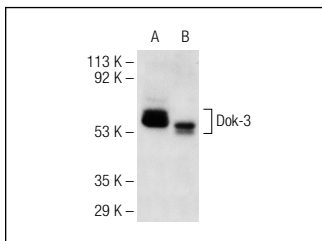
Molecular Weight of Dok-3: 58-62 kDa.

Positive Controls: rat spleen extract: sc-2397, RAW 264.7 whole cell lysate: sc-2211 or mouse spleen extract: sc-2391.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Dok-3 (S-20): sc-10475. Western blot analysis of Dok-3 expression in RAW 264.7 whole cell lysate (A) and mouse spleen tissue extract (B).

SELECT PRODUCT CITATIONS

1. Hiragun, T., et al. 2005. Dexamethasone up-regulates the inhibitory adaptor protein Dok-1 and suppresses downstream activation of the mitogen-activated protein kinase pathway in antigen-stimulated RBL-2H3 mast cells. *Mol. Pharmacol.* 67: 598-603.

MONOS
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Try **Dok-3 (F-7): sc-390007** or **Dok-3 (H-5): sc-373885**, our highly recommended monoclonal alternatives to Dok-3 (S-20).