

Dok-2 (M-20): sc-8131

BACKGROUND

Dok-1 associates with the Ras GTPase activating protein (Ras GAP) upon tyrosine phosphorylation. Evidence suggests that p62 Dok-1 is a substrate of the constitutive tyrosine kinase activity of p210 Bcr-Abl, a fusion protein caused by the t(9;22) translocation and associated with chronic myelogenous leukemia. Dok-1, as well as the tyrosine kinase substrates IRS-1 and Cas, is a member of a class of "docking" proteins which contain multiple tyrosine residues and putative SH2 binding sites. Dok-1 is suspected to be the substrate phosphorylated in response to stimulation by a number of growth factors, including PDGF, VEGF, Insulin and IGF. Dok-2 (also designated p56 Dok) has also been identified as a potential mediator of the effects of p210 Bcr-Abl.

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. Myers, M.G., et al. 1994. The IRS-1 signaling system. *Trends Biochem. Sci.* 19: 289-293.
3. Guo, D., et al. 1995. Vascular endothelial cell growth factor promotes tyrosine phosphorylation of mediators of signal transduction that contain SH2 domains. Association with endothelial cell proliferation. *J. Biol. Chem.* 270: 6729-6733.
4. Mayer, B.J., et al. 1995. Evidence that SH2 domains promote processive phosphorylation by protein-tyrosine kinases. *Curr. Biol.* 5: 296-305.
5. Holgado, M.M., et al. 1996. A GRB2-associated docking protein in EGF- and Insulin-receptor signalling. *Nature* 379: 560-564.
6. Carpino, N., et al. 1997. p62Dok: a constitutively tyrosine-phosphorylated, GAP-associated protein in chronic myelogenous leukemia progenitor cells. *Cell* 88: 197-204.

CHROMOSOMAL LOCATION

Genetic locus: DOK2 (human) mapping to 8p21.3; Dok2 (mouse) mapping to 14 D2.

SOURCE

Dok-2 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Dok-2 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-8131 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.

APPLICATIONS

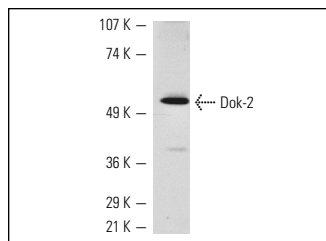
Dok-2 (M-20) is recommended for detection of Dok-2 (DOK-R) of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

Suitable for use as control antibody for Dok-2 siRNA (m): sc-35212, Dok-2 shRNA Plasmid (m): sc-35212-SH and Dok-2 shRNA (m) Lentiviral Particles: sc-35212-V.

Molecular Weight of Dok-2: 56 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242.

DATA



Dok-2 (M-20): sc-8131. Western blot analysis of Dok-2 expression in CTLL-2 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Suzu, S., et al. 2000. p56^{Dok-2} as a cytokine-inducible inhibitor of cell proliferation and signal transduction. *EMBO J.* 19: 5114-5122.
2. Lamkin, T.J., et al. 2006. All-*trans* retinoic acid induces p62DOK1 and p56DOK2 expression which enhances induced differentiation and G₀ arrest of HL-60 leukemia cells. *Am. J. Hematol.* 81: 603-615.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Dok-2 (G-3): sc-515560** or **Dok-2 (E-10): sc-17830**, our highly recommended monoclonal alternatives to Dok-2 (M-20).