

# Dok-1 (L-15): sc-46095

## BACKGROUND

Dok-1 associates with the Ras GTPase-activating protein (Ras GAP) upon tyrosine phosphorylation. Evidence suggests that Dok-1 (also designated p62dok) 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, are members 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 p56dok) 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.
7. Yamanashi, Y., et al. 1997. Identification of the Abl- and Ras GAP-associated 62 kDa protein as a docking protein, Dok. *Cell* 88: 205-211.
8. Di Cristofano, A., et al. 1998. Molecular cloning and characterization of p56dok-2 defines a new family of Ras GAP-binding proteins. *J. Biol. Chem.* 273: 4827-4830.

## CHROMOSOMAL LOCATION

Genetic locus: DOK1 (human) mapping to 2p13.1; Dok1 (mouse) mapping to 6 C3.

## SOURCE

Dok-1 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Dok-1 of human 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-46095 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Dok-1 (L-15) is recommended for detection of Dok-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Dok-1 (L-15) is also recommended for detection of Dok-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dok-1 siRNA (h): sc-35210, Dok-1 siRNA (m): sc-35209, Dok-1 shRNA Plasmid (h): sc-35210-SH, Dok-1 shRNA Plasmid (m): sc-35209-SH, Dok-1 shRNA (h) Lentiviral Particles: sc-35210-V and Dok-1 shRNA (m) Lentiviral Particles: sc-35209-V.

Molecular Weight of Dok-1: 62 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

## 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) 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Dok-1 (A-3): sc-6929** or **Dok-1 (45): sc-135888**, our highly recommended monoclonal alternatives to Dok-1 (L-15).