

Dok-1 (m): 293T Lysate: sc-119822

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 (mouse) mapping to 6 C3.

PRODUCT

Dok-1 (m): 293T Lysate represents a lysate of mouse Dok-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

Dok-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Dok-1 antibodies. Recommended use: 10-20 µl per lane.

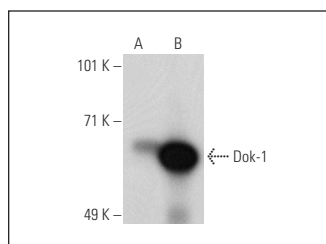
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Dok-1 (A-3): sc-6929 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Dok-1 expression in Dok-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

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

DATA



Dok-1 (A-3): sc-6929. Western blot analysis of Dok-1 expression in non-transfected: sc-117752 (A) and mouse Dok-1 transfected: sc-119822 (B) 293T whole cell lysates.

PROTOCOLS

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