SANTA CRUZ BIOTECHNOLOGY, INC.

Dok-1 (45): sc-135888

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

SOURCE

Dok-1 (45) is a mouse monoclonal antibody raised against amino acids 331-478 of Dok-1 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

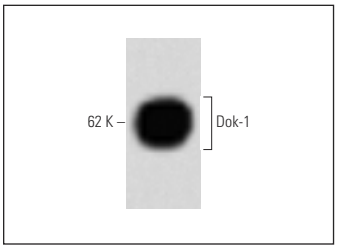
Dok-1 (45) is recommended for detection of Dok-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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

Molecular Weight of Dok-1: 62 kDa.

Positive Controls: Hs68 cell lysate: sc-2230, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

DATA



Dok-1 (45): sc-135888. Western blot analysis of Dok-1 expression in Hs68 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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