SANTA CRUZ BIOTECHNOLOGY, INC.

Dok-1 (M-276): sc-6934

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.

CHROMOSOMAL LOCATION

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

SOURCE

Dok-1 (M-276) is a rabbit polyclonal antibody raised against amino acids 1-276 of Dok-1 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.

APPLICATIONS

Dok-1 (M-276) 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), 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).

Dok-1 (M-276) is also recommended for detection of Dok-1 in additional species, including bovine.

Suitable for use as control antibody for Dok-1 siRNA (h): sc-35210, Dok-1 siRNA (m): sc-35209, Dok-1 siRNA (r): sc-270314, Dok-1 shRNA Plasmid (h): sc-35210-SH, Dok-1 shRNA Plasmid (m): sc-35209-SH, Dok-1 shRNA Plasmid (r): sc-270314-SH, Dok-1 shRNA (h) Lentiviral Particles: sc-35210-V, Dok-1 shRNA (m) Lentiviral Particles: sc-35209-V and Dok-1 shRNA (r) Lentiviral Particles: sc-270314-V.

Molecular Weight of Dok-1: 62 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or HEL 92.1.7 cell lysate: sc-2270.

RESEARCH USE

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

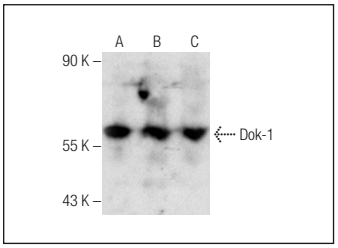
PROTOCOLS

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

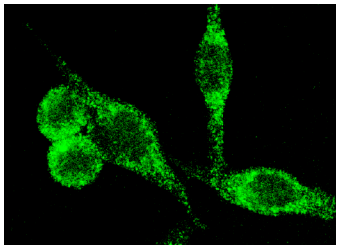
STORAGE

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

DATA



Dok-1 (M-276): sc-6934. Western blot analysis of Dok-1 expression in Jurkat (**A**), K-562 (**B**) and HEL 92.1.7 (**C**) whole cell lysates.



Dok-1 (M-276): sc-6934. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

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2. Gingras, M.C., et al. 2002. Cytoplasmic death signal triggered by Src-mediated phosphorylation of the adenovirus E4orf4 protein. Mol. Cell. Biol. 22: 41-56.
3. Calderwood, D.A., et al. 2003. Integrin β cytoplasmic domain interactions with phosphotyrosine-binding domains: a structural prototype for diversity in integrin signaling. Proc. Natl. Acad. Sci. USA 100: 2272-2277.
4. Bedirian, A., et al. 2004. Pleckstrin homology and phosphotyrosine-binding domain-dependent membrane association and tyrosine phosphorylation of Dok-4, an inhibitory adapter molecule expressed in epithelial cells. J. Biol. Chem. 279: 19335-19349.
5. Zhang, S., et al. 2004. Molecular mechanisms of CD200 inhibition of mast cell activation. J. Immunol. 173: 6786-6793.
6. Smith, A., et al. 2004. High-level expression of Dok-1 in neurons of the primate prefrontal cortex and hippocampus. J. Neurosci. Res. 75: 218-224.
7. Lamkin, T.J., et al. 2006. All-*trans* retinoic acid induces p62DOK1 and p56DOK2 expression which enhances induced differentiation and G_0 arrest of HL-60 leukemia cells. Am. J. Hematol. 81: 603-615.
8. Senis, Y.A., et al. 2009. Proteomic analysis of integrin αIIbβ3 outside-in signaling reveals Src-kinase-independent phosphorylation of Dok-1 and Dok-3 leading to SHIP-1 interactions. J. Thromb. Haemost. 7: 1718-1726.

MONOS Satisfaction Guaranteed

Try **Dok-1 (A-3): sc-6929** or **Dok-1 (45): sc-135888**, our highly recommended monoclonal alternatives to Dok-1 (M-276).