

Dok-1 (M-19): sc-6277

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-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Dok-1 (M-19) is available conjugated to agarose (sc-6277 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-6277 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dok-1 (M-19) 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), 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-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: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or CTLL-2 cell lysate: sc-2242.

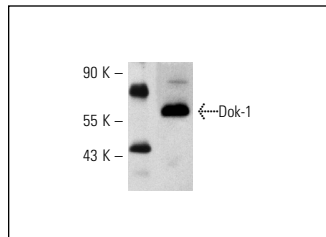
STORAGE

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

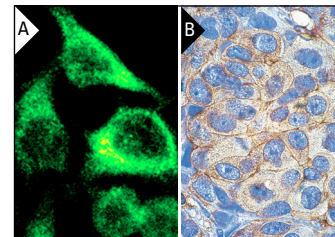
RESEARCH USE

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

DATA



Dok-1 (M-19): sc-6277. Western blot analysis of Dok-1 p62 expression in CTLL-2 whole cell lysate.



Dok-1 (M-19): sc-6277. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing membrane and cytoplasmic staining (B).

SELECT PRODUCT CITATIONS

1. van Dijk, T.B., et al. 2000. Stem cell factor induces phosphatidylinositol 3'-kinase-dependent Lyn/Tec/Dok-1 complex formation in hematopoietic cells. *Blood* 96: 3406-3413.
2. Gembitsky, D.S., et al. 2004. A prototype antibody microarray platform to monitor changes in protein tyrosine phosphorylation. *Mol. Cell. Proteomics* 3: 1102-1118.
3. 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.
4. Okabe, S., et al. 2005. Stromal cell-derived factor-1 α /CXCL12-induced chemotaxis of T cells involves activation of the RasGAP-associated docking protein p62Dok-1. *Blood* 105: 474-480.
5. Demers, A., et al. 2009. A concerted kinase interplay identifies PPAR γ as a molecular target of ghrelin signaling in macrophages. *PLoS ONE* 4: e7728.
6. Hedden, L., et al. 2011. P2X₇ receptor antagonists display agonist-like effects on cell signaling proteins. *Biochim. Biophys. Acta* 1810: 532-542.

PROTOCOLS

See our web site at 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 (M-19).