SANTA CRUZ BIOTECHNOLOGY, INC.

Dok-2 (C-19): sc-8130

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 p62 Dok-1 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, is a member 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 p56 Dok) 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.

CHROMOSOMAL LOCATION

Genetic locus: DOK2 (human) mapping to 8p21.3.

SOURCE

Dok-2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Dok-2 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-8130 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Dok-2 (C-19) is recommended for detection of Dok-2 (DOK-R) of 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).

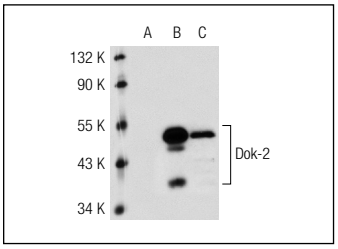
Dok-2 (C-19) is also recommended for detection of Dok-2 (DOK-R) in additional species, including canine.

Suitable for use as control antibody for Dok-2 siRNA (h): sc-35211, Dok-2 shRNA Plasmid (h): sc-35211-SH and Dok-2 shRNA (h) Lentiviral Particles: sc-35211-V.

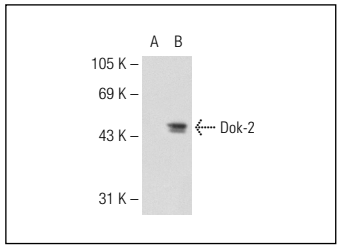
Molecular Weight of Dok-2: 56 kDa.

Positive Controls: Dok-2 (h): 293T Lysate: sc-115188, Jurkat whole cell lysate: sc-2204 or MEG-01 cell lysate: sc-2283.

DATA



Dok-2 (C-19): sc-8130. Western blot analysis of Dok-2 expression in non-transfected 293T: sc-117752 (**A**), human Dok-2 transfected 293T: sc-115188 (**B**) and Jurkat (**C**) whole cell lysates.



Dok-2 (C-19): sc-8130. Western blot analysis of Dok-2 expression in non-transfected: sc-117752 (**A**) and human Dok-2 transfected: sc-176441 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Gembitsky, D.S. 2004. A prototype antibody microarray platform to monitor changes in protein tyrosine phosphorylation. Mol. Cell. Proteomics 3: 1102-1118.
2. Sandes, E.O., et al. 2005. Expression of inducible nitric oxide synthase in tumoral and non-tumoral epithelia from bladder cancer patients. Nitric Oxide 12: 39-45.
3. Mihrshahi, R., et al. 2009. Essential roles for Dok2 and RasGAP in CD200 receptor-mediated regulation of human myeloid cells. J. Immunol. 183: 4879-4886.

RESEARCH USE

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