SANTA CRUZ BIOTECHNOLOGY, INC.

Dok-2 (H-192): sc-13952

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.

CHROMOSOMAL LOCATION

Genetic locus: DOK2 (human) mapping to 8p21.3; Dok2 (mouse) mapping to 14 D2.

SOURCE

Dok-2 (H-192) is a rabbit polyclonal antibody raised against amino acids 221-412 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.

APPLICATIONS

Dok-2 (H-192) is recommended for detection of Dok-2 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-2 siRNA (h): sc-35211, Dok-2 siRNA (m): sc-35212, Dok-2 shRNA Plasmid (h): sc-35211-SH, Dok-2 shRNA Plasmid (m): sc-35212-SH, Dok-2 shRNA (h) Lentiviral Particles: sc-35211-V and Dok-2 shRNA (m) Lentiviral Particles: sc-35212-V.

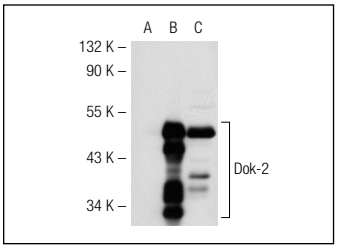
Molecular Weight of Dok-2: 56 kDa.

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

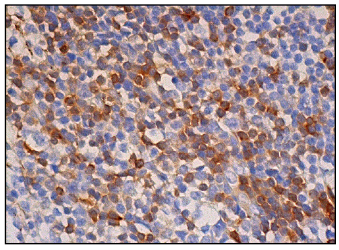
STORAGE

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

DATA



Dok-2 (H-192): sc-13952. 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 (H-192): sc-13952. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal and non-germinal centers.

SELECT PRODUCT CITATIONS

1. Garcia, A., et al. 2003. Differential proteome analysis of TRAP-activated platelets: involvement of Dok-2 and phosphorylation of RGS proteins. Blood 103: 2088-2095.
2. Shinohara, H., et al. 2005. Dok-1 and Dok-2 are negative regulators of lipopolysaccharide-induced signaling. J. Exp. Med. 201: 333-339.
3. Dong, S., et al. 2006. T cell receptor for antigen induces linker for activation of T cell-dependent activation of a negative signaling complex involving Dok-2, SHIP-1, and Grb-2. J. Exp. Med. 203: 2509-2518.
4. Mihrshahi, R., et al. 2009. Essential roles for Dok-2 and RasGAP in CD200 receptor-mediated regulation of human myeloid cells. J. Immunol. 183: 4879-4886.
5. Parguina, A.F., et al. 2012. A detailed proteomic analysis of rhodocytin-activated platelets reveals novel clues on the CLEC-2 signalosome: implications for CLEC-2 signaling regulation. Blood 120: e117-e126.
6. Shai, E., et al. 2012. Comparative analysis of platelet-derived microparticles reveals differences in their amount and proteome depending on the platelet stimulus. J. Proteomics 76: 287-296.

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.