SANTA CRUZ BIOTECHNOLOGY, INC.

Dok-2 (G-3): sc-515560

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 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-kilodalton 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. Mayer, B.J., et al. 1995. Evidence that SH2 domains promote processive phosphorylation by protein-tyrosine kinases. Curr. Biol. 5: 296-305.
4. Carpino, N., et al. 1997. p62 Dok: a constitutively tyrosine-phosphorylated, GAP-associated protein in chronic myelogenous leukemia progenitor cells. Cell 88: 197-204.
5. Yamanashi, Y., et al. 1997. Identification of the Abl- and RasGAP-associated 62 kDa protein as a docking protein, Dok. Cell 88: 205-211.

CHROMOSOMAL LOCATION

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

SOURCE

Dok-2 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 381-405 at the C-terminus of Dok-2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Dok-2 (G-3) is available conjugated to agarose (sc-515560 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515560 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515560 PE), fluorescein (sc-515560 FITC), Alexa Fluor® 488 (sc-515560 AF488), Alexa Fluor® 546 (sc-515560 AF546), Alexa Fluor® 594 (sc-515560 AF594) or Alexa Fluor® 647 (sc-515560 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515560 AF680) or Alexa Fluor® 790 (sc-515560 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515560 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Dok-2 (G-3) is recommended for detection of Dok-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

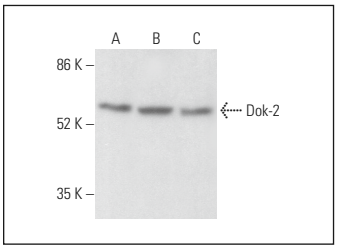
Molecular Weight of Dok-2: 56 kDa.

Positive Controls: I-11.15 whole cell lysate: sc-364370, THP-1 cell lysate: sc-2238 or PC-12 cell lysate: sc-2250.

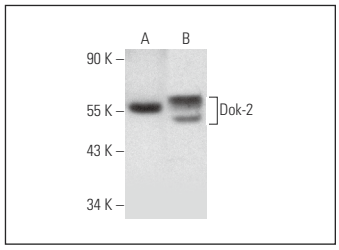
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Dok-2 (G-3): sc-515560. Western blot analysis of Dok-2 expression in PC-12 (**A**), THP-1 (**B**) and HEL 92.1.7 (**C**) whole cell lysates.



Dok-2 (G-3): sc-515560. Western blot analysis of Dok-2 expression in I-11.15 (**A**) and PC-12 (**B**) whole cell lysates.

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.

PROTOCOLS

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