SANTA CRUZ BIOTECHNOLOGY, INC.

Dok-6 (C-15): sc-47865

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The Power to Question

BACKGROUND

The downstream of kinase family (Dok-1-7) are members of a class of "docking" proteins that include the tyrosine kinase substrates IRS-1 and Cas, which contain multiple tyrosine residues and putative SH2 binding sites. Dok-4, Dok-5 and Dok-6 are more similar to each other than to the other Dok family members, and may constitute a subfamily of the DOK genes. Dok-5 is a tyrosine kinase substrate that enhances c-Ret-dependent activation of mitogen-activated protein kinase (MAPK). Dok-5 transcript is abundant in muscle and increases during T cell activation. Dok-5 protein undergoes tyrosine phosphorylation in response to Insulin and Insulin-like growth factor-1. Dok-6 is highly expressed in the developing central nervous system. It associates with Ret to transduce Ret-mediated processes such as axonal projection.

REFERENCES

1. Grimm, J., et al. 2001. Novel p62dok family members, Dok-4 and Dok-5, are substrates of the c-Ret receptor tyrosine kinase and mediate neuronal differentiation. J. Cell Biol. 154: 345-354.
2. Shi, N., et al. 2002. Expression, crystallization and preliminary X-ray studies of the recombinant PTB domain of human Dok-5 protein. Acta Crystallogr. D Biol. Crystallogr. 58: 2170-2172.
3. Cai, D., et al. 2003. Two new substrates in Insulin signaling, IRS-5/Dok-4 and IRS-6/Dok-5. J. Biol. Chem. 278: 25323-25330.
4. Favre, C., et al. 2003. Dok-4 and Dok-5: new Dok-related genes expressed in human T cells. Genes Immun. 4: 40-45.
5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608334. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Zhang, Y., et al. 2004. Molecular basis of distinct interactions between Dok1 PTB domain and tyrosine-phosphorylated EGF receptor. J. Mol. Biol. 343: 1147-1155.
7. Crowder, R.J., et al. 2004. Dok-6, a Novel p62 Dok family member, promotes Ret-mediated neurite outgrowth. J. Biol. Chem. 279: 42072-42081.

CHROMOSOMAL LOCATION

Genetic locus: DOK6 (human) mapping to 18q22.2.

SOURCE

Dok-6 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Dok-6 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-47865 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Dok-6 (C-15) is recommended for detection of Dok-6 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-6 (C-15) is also recommended for detection of Dok-6 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Dok-6 siRNA (h): sc-60547, Dok-6 shRNA Plasmid (h): sc-60547-SH and Dok-6 shRNA (h) Lentiviral Particles: sc-60547-V.

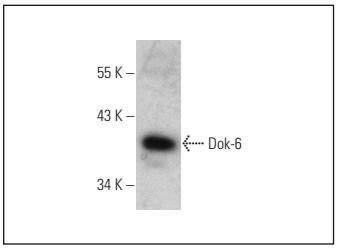
Molecular Weight of Dok-6: 38 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, SK-N-MC cell lysate: sc-2237 or HeLa whole cell lysate: sc-2200.

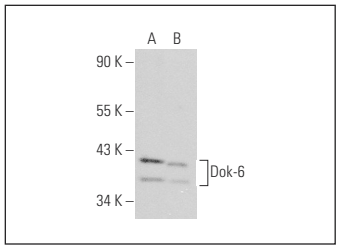
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Dok-6 (C-15): sc-47865. Western blot analysis of Dok-6 expression in SH-SY5Y whole cell lysate.



Dok-6 (C-15): sc-47865. Western blot analysis of Dok-6 expression in SK-N-MC (**A**) and HeLa (**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.

PROTOCOLS

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