

Dok-5 (C-15): sc-27486

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 and Dok-5 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. The gene encoding human Dok-5 maps to chromosomal location 20q13.2.

REFERENCES

- 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.
- 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.
- Cai, D., et al. 2003. Two new substrates in Insulin signaling, IRS5/DOK4 and IRS6/DOK5. *J. Biol. Chem.* 278: 25323-25330.
- Favre, C., et al. 2003. DOK4 and DOK5: new Dok-related genes expressed in human T cells. *Genes Immun.* 4: 40-45.
- 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/>
- 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.
- LocusLink Report (LocusID: 55715). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: DOK5 (human) mapping to 20q13.2; Dok5 (mouse) mapping to 2 H3.

SOURCE

Dok-5 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Dok-5 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-27486 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-5 (C-15) is recommended for detection of Dok-5, isoforms 1 and 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).

Dok-5 (C-15) is also recommended for detection of Dok-5, isoforms 1 and 2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Dok-5 siRNA (h): sc-105314, Dok-5 siRNA (m): sc-143139, Dok-5 shRNA Plasmid (h): sc-105314-SH, Dok-5 shRNA Plasmid (m): sc-143139-SH, Dok-5 shRNA (h) Lentiviral Particles: sc-105314-V and Dok-5 shRNA (m) Lentiviral Particles: sc-143139-V.

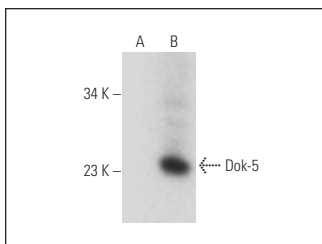
Molecular Weight of Dok-5: 35 kDa.

Positive Controls: Dok-5 (h): 293 Lysate: sc-110916.

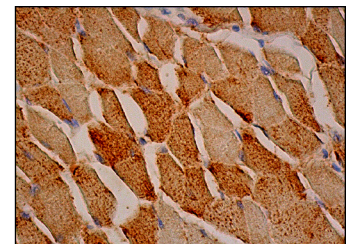
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Dok-5 (C-15): sc-27486. Western blot analysis of Dok-5 expression in non-transfected: sc-110760 (A) and human Dok-5 transfected: sc-110916 (B) 293 whole cell lysates.



Dok-5 (C-15): sc-27486. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

STORAGE

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