

# Dok-5 (E-16): sc-27485

## 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, DOK6 (human) mapping to 18q22.2; Dok5 (mouse) mapping to 2 H3, DOK6 (mouse) mapping to 18 E4.

## SOURCE

Dok-5 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-27485 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 (E-16) is recommended for detection of Dok-5, isoforms 1 and 2, and to a lesser extent, Dok-6 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Dok-5 (E-16) is also recommended for detection of Dok-5, isoforms 1 and 2, and to a lesser extent, Dok-6 in additional species, including equine, canine, bovine, porcine and avian.

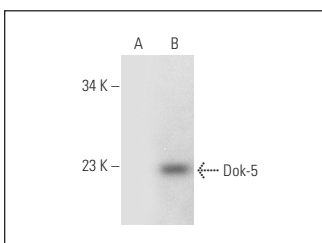
Molecular Weight of Dok-5: 35 kDa.

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.

## DATA



Dok-5 (E-16): sc-27485. 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.