

Dok-7 (H-284): sc-50463

BACKGROUND

The downstream of kinase family (Dok1-7) 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. Based on their similarities, the Dok family of proteins can be divided into three subgroups: Dok-1/2/3, Dok-4/5/6 and Dok-7. Through its interaction with muscle-specific receptor kinase (MuSK), Dok-7 is crucial for neuromuscular synaptogenesis and for MuSK activation. Mice lacking Dok-7 do not form neuromuscular synapses nor acetylcholine receptor clusters. Mutations in the Dok-7 gene can cause congenital myasthenic syndromes (CMA) – recessively inherited disorders characterized by muscle weakness.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DOK7 (human) mapping to 4p16.3.

SOURCE

Dok-7 (H-284) is a rabbit polyclonal antibody raised against amino acids 214-498 mapping within an internal region of Dok-7 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-7 (H-284) is recommended for detection of Dok-7 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).

Suitable for use as control antibody for Dok-7 siRNA (h): sc-61852, Dok-7 shRNA Plasmid (h): sc-61852-SH and Dok-7 shRNA (h) Lentiviral Particles: sc-61852-V.

Molecular Weight of Dok-7: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Selcen, D., Milone, M., Shen, X.M., Harper, C.M., Stans, A.A., Wieben, E.D. and Engel, A.G. 2008. Dok-7 myasthenia: phenotypic and molecular genetic studies in 16 patients. *Ann. Neurol.* 64: 71-87.
- Linnoila, J., Wang, Y., Yao, Y. and Wang Z.Z. 2008. A mammalian homolog of *Drosophila* tumorous imaginal discs, Tid1, mediates Agrin signaling at the neuromuscular junction. *Neuron* 60: 625-641.

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 or our catalog for detailed protocols and support products.


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Try **Dok-7 (A-7): sc-390856**, our highly recommended monoclonal alternative to Dok-7 (H-284).