

THUMPD1 (K-16): sc-165695

BACKGROUND

The THUMP (after thiouridine synthases, RNA methylases and pseudouridine synthases) domain is an ancient 100-110 amino acid motif that is found in proteins that are involved in RNA-modification pathways. THUMP domains contain RNA-binding sequences and are thought to deliver RNA modification enzymes to their target substrates. THUMPD1, THUMPD2 and THUMPD3 (THUMP domain-containing protein 1, 2 and 3, respectively) are members of the methyltransferase superfamily and each contain one THUMP domain. Both THUMPD2 and THUMPD3 are expressed in tissues throughout the body with highest expression levels in skeletal muscle, spleen, thymus, liver and kidney. Due to the presence of a THUMP domain, the THUMPD proteins are thought to participate in RNA processing events throughout the cell.

REFERENCES

1. Zhang, Y., et al. 2001. Localization, genomic organization, and alternative transcription of a novel human SAM-dependent methyltransferase gene on chromosome 2p22→p21. *Cytogenet. Cell Genet.* 95: 146-152.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611751. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Lehner, B., et al. 2004. A protein interaction framework for human mRNA degradation. *Genome Res.* 14: 1315-1323.
4. Olsen, J.V., et al. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.
5. Gross, J.B., et al. 2006. Use of a ROSA26:GFP transgenic line for long-term *Xenopus* fate-mapping studies. *J. Anat.* 209: 401-413.

CHROMOSOMAL LOCATION

Genetic locus: THUMPD1 (human) mapping to 16p12.3; Thumpd1 (mouse) mapping to 7 F2.

SOURCE

THUMPD1 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of THUMPD1 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-165695 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

THUMPD1 (K-16) is recommended for detection of THUMPD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with THUMPD2 or THUMPD3.

THUMPD1 (K-16) is also recommended for detection of THUMPD1 in additional species, including equine and porcine.

Suitable for use as control antibody for THUMPD1 siRNA (h): sc-93083, THUMPD1 siRNA (m): sc-154263, THUMPD1 shRNA Plasmid (h): sc-93083-SH, THUMPD1 shRNA Plasmid (m): sc-154263-SH, THUMPD1 shRNA (h) Lentiviral Particles: sc-93083-V and THUMPD1 shRNA (m) Lentiviral Particles: sc-154263-V.

Molecular Weight of THUMPD1: 39 kDa.

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) 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.

RESEARCH USE

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