



KBTBD10 (D-25): sc-101989

BACKGROUND

KBTBD10 (Kelch repeat and BTB domain-containing protein 10), also known as Kel-like protein 23, sarcosin or Kelch-related protein 1, is a 606 amino acid cytoplasmic protein found in sarcomeric muscle. KBTBD10 plays an important role in the protein ubiquitination pathway by acting as the substrate-specific adaptor of an E3 ubiquitin-protein ligase complex. KBTBD10 forms this complex with CUL-3 and Rbx1, and also interacts with N-RAP. Although predominantly cytoplasmic, KBTBD10 can co-localize with Actin at the ruffle-like membrane structures located at the tips of pseudopodia, indicating a role in pseudopod elongation in transformed cells. KBTBD10 contains five Kelch repeats and one BTB (POZ) domain. Due to alternative splicing events, KBTBD10 exists as two isoforms.

REFERENCES

1. Taylor, A., et al. 1998. DNA sequence and muscle-specific expression of human sarcosin transcripts. *Mol. Cell. Biochem.* 183: 105-112.
2. Spence, H.J., et al. 2000. Krp1, a novel Kelch related protein that is involved in pseudopod elongation in transformed cells. *Oncogene* 19: 1266-1276.
3. Lim, D.S., et al. 2001. Expression profiling of cardiac genes in human hypertrophic cardiomyopathy: insight into the pathogenesis of phenotypes. *J. Am. Coll. Cardiol.* 38: 1175-1180.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607701. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Lu, S., et al. 2003. New N-RAP-binding partners α -actinin, Filamin and Krp1 detected by yeast two-hybrid screening: implications for myofibril assembly. *J. Cell Sci.* 116: 2169-2178.
6. Zhang, D.D., et al. 2005. Ubiquitination of Keap1, a BTB-Kelch substrate adaptor protein for CUL-3, targets Keap1 for degradation by a proteasome-independent pathway. *J. Biol. Chem.* 280: 30091-30099.
7. Foster, L.J., et al. 2006. Insulin-dependent interactions of proteins with Glut4 revealed through stable isotope labeling by amino acids in cell culture (SILAC). *J. Proteome Res.* 5: 64-75.
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CHROMOSOMAL LOCATION

Genetic locus: KBTBD10 (human) mapping to 2q31.1; Kbtbd10 (mouse) mapping to 2 C2.

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.

SOURCE

KBTBD10 (D-25) is a purified rabbit polyclonal antibody raised against KBTBD10 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

KBTBD10 (D-25) is recommended for detection of KBTBD10 of mouse, rat, human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

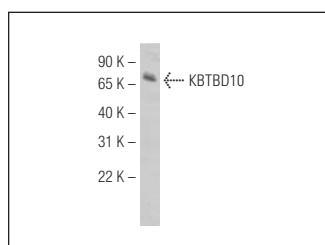
Suitable for use as control antibody for KBTBD10 siRNA (h): sc-94395, KBTBD10 siRNA (m): sc-146347, KBTBD10 shRNA Plasmid (h): sc-94395-SH, KBTBD10 shRNA Plasmid (m): sc-146347-SH, KBTBD10 shRNA (h) Lentiviral Particles: sc-94395-V and KBTBD10 shRNA (m) Lentiviral Particles: sc-146347-V.

Molecular Weight of KBTBD10: 68 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).

DATA



KBTBD10 (D-25): sc-101989. Western blot analysis of KBTBD10 expression in human fetal muscle tissue extract.

RESEARCH USE

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