

KLHL31 (S-13): sc-132316

BACKGROUND

KLHL31, also known as kelch-like protein 31, BTB and kelch domain-containing protein 6, kelch-like protein KLHL or kelch repeat and BTB domain-containing protein 1, is a 634 amino acid protein similar to the *Drosophila* kelch protein. KLHL31 is expressed strongly in skeletal muscle and weakly in heart. KLHL31 contains one BACK (BTB/kelch associated) domain, which may indicate a role in substrate orientation in E3 ligase complexes. KLHL31 also contains six kelch repeats and one BTB (POZ) domain. The BTB (broad complex, tramtrack and bric-a-brac) domain, also known as the POZ (poxvirus and zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C₂H₂-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function.

REFERENCES

- Albagli, O., et al. 1995. The BTB/POZ domain: a new protein-protein interaction motif common to DNA- and actin-binding proteins. *Cell Growth Differ.* 6: 1193-1198.
- Melnick, A., et al. 2000. In-depth mutational analysis of the promyelocytic leukemia zinc finger BTB/POZ domain reveals motifs and residues required for biological and transcriptional functions. *Mol. Cell. Biol.* 20: 6550-6567.
- Adams, J., et al. 2000. The kelch repeat superfamily of proteins: propellers of cell function. *Trends Cell Biol.* 10: 17-24.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610749. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Prag, S. and Adams, J.C. 2003. Molecular phylogeny of the kelch-repeat superfamily reveals an expansion of BTB/kelch proteins in animals. *BMC Bioinformatics* 4: 42.
- Geyer, R., et al. 2003. BTB/POZ domain proteins are putative substrate adaptors for cullin 3 ubiquitin ligases. *Mol. Cell* 12: 783-790.

CHROMOSOMAL LOCATION

Genetic locus: KLHL31 (human) mapping to 6p12.1; Klhl31 (mouse) mapping to 9 E1.

SOURCE

KLHL31 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHL31 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-132316 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.

APPLICATIONS

KLHL31 (S-13) is recommended for detection of KLHL31 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); non cross-reactive with other KLHL family members.

KLHL31 (S-13) is also recommended for detection of KLHL31 in additional species, including equine, porcine and avian.

Suitable for use as control antibody for KLHL31 siRNA (h): sc-95308, KLHL31 siRNA (m): sc-146530, KLHL31 shRNA Plasmid (h): sc-95308-SH, KLHL31 shRNA Plasmid (m): sc-146530-SH, KLHL31 shRNA (h) Lentiviral Particles: sc-95308-V and KLHL31 shRNA (m) Lentiviral Particles: sc-146530-V.

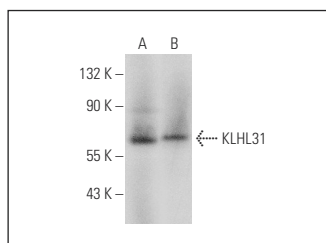
Molecular Weight of KLHL31: 70 kDa.

Positive Controls: human skeletal muscle extract: sc-363776 or mouse skeletal muscle extract: sc-364250.

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



KLHL31 (S-13): sc-132316. Western blot analysis of KLHL31 expression in human skeletal muscle (A) and mouse skeletal muscle (B) tissue extracts.

RESEARCH USE

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



Try **KLHL31 (E-2): sc-514464**, our highly recommended monoclonal alternative to KLHL31 (S-13).