

# KLHL31 (V-23): sc-102001

## 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 C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function.

## REFERENCES

1. 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.
2. 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.
3. Adams, J., et al. 2000. The kelch repeat superfamily of proteins: propellers of cell function. *Trends Cell Biol.* 10: 17-24.
4. 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/>
5. 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.
6. Geyer, R., et al. 2003. BTB/POZ domain proteins are putative substrate adaptors for Cullin-3 ubiquitin ligases. *Mol. Cell* 12: 783-790.
7. Stogios, P.J. and Privé, G.G. 2004. The BACK domain in BTB-kelch proteins. *Trends Biochem. Sci.* 29: 634-637.
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## CHROMOSOMAL LOCATION

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

## SOURCE

KLHL31 (V-23) is a purified rabbit polyclonal antibody raised against KLHL31 of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and <0.02% sucrose.

## APPLICATIONS

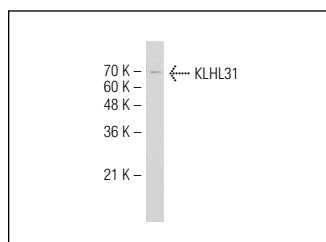
KLHL31 (V-23) is recommended for detection of KLHL31 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 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.

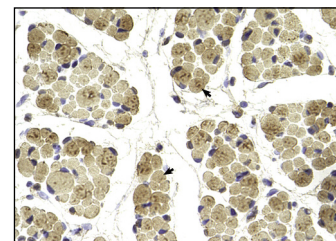
Molecular Weight of KLHL31: 70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## DATA



KLHL31 (V-23): sc-102001. Western blot analysis of KLHL31 expression in Jurkat whole cell lysate.



KLHL31 (V-23): sc-102001. Immunoperoxidase staining of formalin fixed, paraffin-embedded human muscle tissue showing cytoplasmic staining.

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


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Try **KLHL31 (E-2): sc-514464**, our highly recommended monoclonal alternative to KLHL31 (V-23).