



KLHL5 (W-22): sc-102002

BACKGROUND

KLHL5, also known as Kelch-like protein 5, is a 755 amino acid protein similar to the *Drosophila* Kelch protein. Localized to the cytoskeleton, KLHL5 is expressed at higher levels in thyroid gland, adrenal gland and ovary and has lower expression in spinal chord, prostate, lymph node, trachea and testis. KLHL5 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. KLHL5 is expressed as three isoforms produced by alternative splicing.

REFERENCES

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2. Robinson, D.N. and Cooley, L. 1997. *Drosophila* Kelch is an oligomeric ring canal actin organizer. *J. Cell Biol.* 138: 799-810.
3. 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.
4. Adams, J., et al. 2000. The Kelch repeat superfamily of proteins: propellers of cell function. *Trends Cell Biol.* 10: 17-24.
5. Wang, S., et al. 2001. Cloning and characterization of KLHL5, a novel human gene encoding a Kelch-related protein with a BTB domain. *Biochem. Genet.* 39: 227-238.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608064. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. 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.
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CHROMOSOMAL LOCATION

Genetic locus: KLHL5 (human) mapping to 4p14.

SOURCE

KLHL5 (W-22) is a purified rabbit polyclonal antibody raised against KLHL5 of human origin.

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.

PRODUCT

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

APPLICATIONS

KLHL5 (W-22) is recommended for detection of KLHL5 of human, rat and dog 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KLHL5 siRNA (h): sc-89298, KLHL5 shRNA Plasmid (h): sc-89298-SH and KLHL5 shRNA (h) Lentiviral Particles: sc-89298-V.

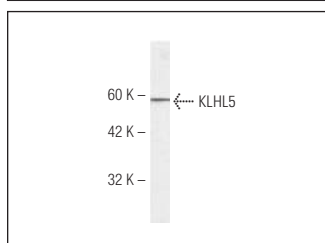
Molecular Weight of KLHL5: 84 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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



KLHL5 (W-22): sc-102002. Western blot analysis of KLHL5 expression in Hep G2 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.