

# KLHL5 (W-14): sc-131579

## 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 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. KLHL5 is expressed as three isoforms produced by alternative splicing.

## 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. 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/>

## CHROMOSOMAL LOCATION

Genetic locus: KLHL5 (human) mapping to 4p14; Klhl5 (mouse) mapping to 5 C3.1.

## SOURCE

KLHL5 (W-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHL5 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-131579 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

KLHL5 (W-14) is recommended for detection of KLHL5 isoforms 1-3 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.

KLHL5 (W-14) is also recommended for detection of KLHL5 isoforms 1-3 in additional species, including equine and porcine.

Suitable for use as control antibody for KLHL5 siRNA (h): sc-89298, KLHL5 siRNA (m): sc-146534, KLHL5 shRNA Plasmid (h): sc-89298-SH, KLHL5 shRNA Plasmid (m): sc-146534-SH, KLHL5 shRNA (h) Lentiviral Particles: sc-89298-V and KLHL5 shRNA (m) Lentiviral Particles: sc-146534-V.

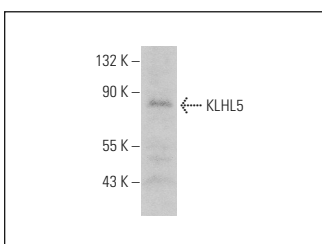
Molecular Weight of KLHL5: 84 kDa.

Positive Controls: A549 cell lysate: sc-2413.

## 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



KLHL5 (W-14): sc-131579. Western blot analysis of KLHL5 expression in A549 whole cell lysate.

## RESEARCH USE

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

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Try **KLHL5 (A-2): sc-515745**, our highly recommended monoclonal alternative to KLHL5 (W-14).