

# KLHL15 (C-14): sc-168373

## BACKGROUND

KLHL15 (kelch-like protein 15), also known as KIAA1677 or MGC126148, is a 604 amino acid protein that interacts with CUL-3. KLHL15 is believed to be a substrate-specific adapter of an E3 ubiquitin-protein ligase complex which regulates the ubiquitination, and subsequent proteasomal degradation, of target proteins. KLHL15 contains one BACK (BTB/Kelch associated) domain, five kelch repeats and one BTB 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

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2. Nagase, T., Kikuno, R., Hattori, A., Kondo, Y., Okumura, K. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XIX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 347-355.
3. Melnick, A., Ahmad, K.F., Arai, S., Polinger, A., Ball, H., Borden, K.L., Carlile, G.W., Prive, G.G. and Licht, J.D. 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. Furukawa, M., He, Y.J., Borchers, C. and Xiong, Y. 2003. Targeting of protein ubiquitination by BTB-Cullin 3-Roc1 ubiquitin ligases. *Nat. Cell Biol.* 5: 1001-1007.
5. Yoshida, K. 2005. Identification and characterization of a novel kelch-like gene KLHL15 *in silico*. *Oncol. Rep.* 13: 1133-1137.
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## CHROMOSOMAL LOCATION

Genetic locus: KLHL15 (human) mapping to Xp22.11; Klhl15 (mouse) mapping to X C3.

## SOURCE

KLHL15 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of KLHL15 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-168373 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KLHL15 (C-14) is recommended for detection of KLHL15 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.

KLHL15 (C-14) is also recommended for detection of KLHL15 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KLHL15 siRNA (h): sc-91214, KLHL15 siRNA (m): sc-146516, KLHL15 shRNA Plasmid (h): sc-91214-SH, KLHL15 shRNA Plasmid (m): sc-146516-SH, KLHL15 shRNA (h) Lentiviral Particles: sc-91214-V and KLHL15 shRNA (m) Lentiviral Particles: sc-146516-V.

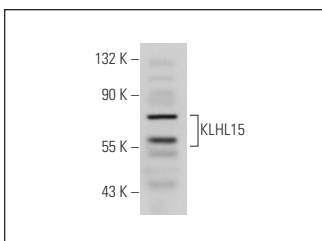
Molecular Weight of KLHL15: 70 kDa.

Positive Controls: mouse brain extract: sc-2253.

## 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



KLHL15 (C-14): sc-168373. Western blot analysis of KLHL15 expression in mouse brain tissue extract.

## 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.