

# KLHL13 (O-19): sc-101899

## BACKGROUND

KLHL13 (kelch-like 13), also known as BKLHD2 (BTB and kelch domain-containing protein 2), is a 604 amino acid protein that contains 6 Kelch repeats and one BTB/POZ domain. Expressed predominantly in brain, KLHL13 is believed to play a role in protein ubiquitination and may function as a substrate-specific adapter of an E3 ubiquitin-protein ligase complex. E3 ligases accept a ubiquitin residue from an E2 ubiquitin-conjugating enzyme and immediately transfer that residue to a protein that is targeted for degradation. Specifically, KLHL13 interacts with KLHL9 and CUL-3, a member of the cullin family of mediators that participate in the selective targeting of proteins for ubiquitin-mediated proteolysis. Via its BTB and C-terminal Kelch (BACK) motif, KLHL13 is thought to play a role in spatially orientating substrates in the CUL-3 ligase.

## REFERENCES

1. Singer, J.D., Gurian-West, M., Clurman, B. and Roberts, J.M. 1999. Cullin-3 targets cyclin E for ubiquitination and controls S phase in mammalian cells. *Genes Dev.* 13: 2375-2387.
2. Tyers, M. and Willems, A.R. 1999. One ring to rule a superfamily of E3 ubiquitin ligases. *Science* 284: 601, 603-604.
3. Nagase, T., Kikuno, R., Ishikawa, K.I., Hirose, M. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 65-73.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300655. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Morrow, C.J., Tighe, A., Johnson, V.L., Scott, M.I., Ditchfield, C. and Taylor, S.S. 2005. BUB1 and Aurora B cooperate to maintain BUBR1-mediated inhibition of APC/CCdc20. *J. Cell Sci.* 118: 3639-3652.

## CHROMOSOMAL LOCATION

Genetic locus: KLHL13 (human) mapping to Xq24.

## SOURCE

KLHL13 (O-19) is a purified rabbit polyclonal antibody raised against KLHL13 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.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

KLHL13 (O-19) is recommended for detection of KLHL13 of 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 KLHL13 siRNA (h): sc-91014, KLHL13 shRNA Plasmid (h): sc-91014-SH and KLHL13 shRNA (h) Lentiviral Particles: sc-91014-V.

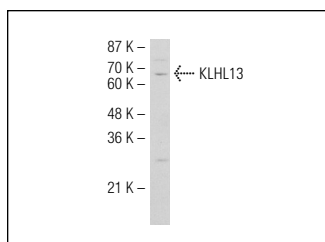
Molecular Weight of KLHL13: 68 kDa.

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

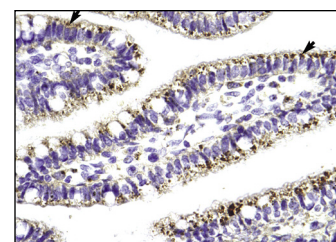
## RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



KLHL13 (O-19): sc-101899. Western blot analysis of KLHL13 expression in Jurkat whole cell lysate.



KLHL13 (O-19): sc-101899. Immunoperoxidase staining of formalin fixed, paraffin-embedded human intestine tissue showing cytoplasmic staining.

## RESEARCH USE

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

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Try **KLHL9/13 (D-4): sc-166486**, our highly recommended monoclonal alternative to KLHL13 (O-19).