

KLHL2/3 (H-253): sc-99110

BACKGROUND

KLHL2 (kelch-like protein 2), also known as Actin-binding protein Mayven, is a 593 amino acid Actin-binding protein. Highly expressed in brain, KLHL2 is thought to play a role in the organization of the Actin cytoskeleton in brain cells. KLHL3 (kelch-like protein 3) is a 587 amino acid protein active in the protein ubiquitination pathway. KLHL3 is thought to be a substrate-specific adapter of an E3 ubiquitin-ligase complex that mediates the ubiquitination of target proteins, which leads to proteasomal degradation of the target protein. KLHL2 and KLHL3 proteins contain 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.

REFERENCES

1. Soltysik-Espanola, M., Rogers, R.A., Jiang, S., Kim, T.A., Gaedigk, R., White, R.A., Avraham, H. and Avraham, S. 1999. Characterization of Mayven, a novel Actin-binding protein predominantly expressed in brain. *Mol. Biol. Cell* 10: 2361-2375.
2. Lai, F., Orelli, B.J., Till, B.G., Godley, L.A., Fernald, A.A., Pamintuan, L. and Le Beau, M.M. 2000. Molecular characterization of KLHL3, a human homologue of the *Drosophila* kelch gene. *Genomics* 66: 65-75.
3. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605775. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Williams, S.K., Spence, H.J., Rodgers, R.R., Ozanne, B.W., Fitzgerald, U. and Barnett, S.C. 2005. Role of Mayven, a kelch-related protein in oligodendrocyte process formation. *J. Neurosci. Res.* 81: 622-631.

CHROMOSOMAL LOCATION

Genetic locus: KLHL2 (human) mapping to 4q32.3, KLHL3 (human) mapping to 5q31.2; Klhl2 (mouse) mapping to 8 B3.1, Klhl3 (mouse) mapping to 13 B1.

SOURCE

KLHL2/3 (H-253) is a rabbit polyclonal antibody raised against amino acids 315-565 mapping near the C-terminus of KLHL2 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.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

KLHL2/3 (H-253) is recommended for detection of KLHL2 and KLHL3 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).

KLHL2/3 (H-253) is also recommended for detection of KLHL2 and KLHL3 in additional species, including canine, bovine, porcine and avian.

Molecular Weight of KLHL2: 65 kDa.

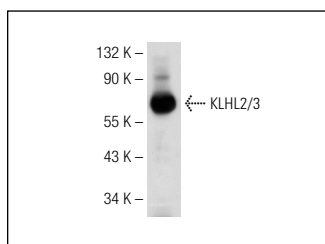
Molecular Weight of KLHL3: 66 kDa.

Positive Controls: mouse testis extract: sc-2405.

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.

DATA



KLHL2/3 (H-253): sc-99110. Western blot analysis of KLHL2/3 expression in mouse testis tissue extract.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **KLHL2 (3G3): sc-517087**, our highly recommended monoclonal alternative to KLHL2/3 (H-253).