

KLHL22 (D-17): sc-86509

BACKGROUND

KLHL22 (kelch-like protein 22) is a 634 amino acid protein that is related to the *Drosophila* kelch protein, which is required to maintain Actin organization in ovarian ring canals. Mutations affecting Kelch function result in the failure of Kelch to associate with the ring canals and subsequent female sterility. Human KLHL22 protein 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. There are two isoforms of KLHL22 that are produced as a result of alternative splicing events.

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. Kelso, R.J., et al. 2002. *Drosophila* Kelch regulates Actin organization via Src64-dependent tyrosine phosphorylation. *J. Cell Biol.* 156: 703-713.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: KLHL22 (human) mapping to 22q11.21; Klhl22 (mouse) mapping to 16 A3.

SOURCE

KLHL22 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHL22 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-86509 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

KLHL22 (D-17) is recommended for detection of KLHL22 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.

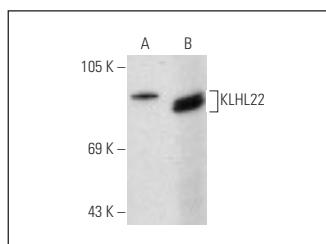
KLHL22 (D-17) is also recommended for detection of KLHL22 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for KLHL22 siRNA (h): sc-75396, KLHL22 siRNA (m): sc-146522, KLHL22 shRNA Plasmid (h): sc-75396-SH, KLHL22 shRNA Plasmid (m): sc-146522-SH, KLHL22 shRNA (h) Lentiviral Particles: sc-75396-V and KLHL22 shRNA (m) Lentiviral Particles: sc-146522-V.

Molecular Weight of KLHL22 isoforms: 72/60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse brain extract: sc-2253.

DATA



KLHL22 (D-17): sc-86509. Western blot analysis of KLHL22 expression in HeLa whole cell lysate (A) and mouse brain tissue extract (B).

RESEARCH USE

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

PROTOCOLS

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