SANTA CRUZ BIOTECHNOLOGY, INC.

KLHL17 (H-7): sc-514593

BACKGROUND

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_2H_2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KLHL17 (kelch-like protein 17) is a 642 amino acid protein containing a BACK (BTB/kelch associated) domain, a BTB (POZ) domain, and six kelch repeats. Expressed in brain, KLHL17 interacts with F-Actin, and may function in Actin-based neuronal function. KLHL17 interacts with PDZK1, which is essential for the integrity of actin cytoskeletons, as well as SYNGAP1, KLHL17 and NMDA receptors. The gene encoding KLHL17 maps to human chromosome 1p36.33 and mouse chromosome 4 E2.

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. Adams, J., et al. 2000. The kelch repeat superfamily of proteins: propellers of cell function. Trends Cell Biol. 10: 17-24.
3. Braybrook, C., et al. 2001. Identification and characterization of KLHL4, a novel human homologue of the *Drosophila* Kelch gene that maps within the X-linked cleft palate and Ankyloglossia (CPX) critical region. Genomics 72: 128-136.
4. Braybrook, C., et al. 2001. Physical and transcriptional mapping of the X-linked cleft palate and ankyloglossia (CPX) critical region. Hum. Genet. 108: 537-545.
5. 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: KLHL17 (human) mapping to 1p36.33; Klhl17 (mouse) mapping to 4 E2.

SOURCE

KLHL17 (H-7) is a mouse monoclonal antibody raised against amino acids 496-580 mapping near the C-terminus of KLHL17 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KLHL17 (H-7) is available conjugated to agarose (sc-514593 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514593 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514593 PE), fluorescein (sc-514593 FITC), Alexa Fluor® 488 (sc-514593 AF488), Alexa Fluor® 546 (sc-514593 AF546), Alexa Fluor® 594 (sc-514593 AF594) or Alexa Fluor® 647 (sc-514593 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514593 AF680) or Alexa Fluor® 790 (sc-514593 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KLHL17 (H-7) is recommended for detection of KLHL17 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for KLHL17 siRNA (h): sc-88478, KLHL17 siRNA (m): sc-146517, KLHL17 shRNA Plasmid (h): sc-88478-SH, KLHL17 shRNA Plasmid (m): sc-146517-SH, KLHL17 shRNA (h) Lentiviral Particles: sc-88478-V and KLHL17 shRNA (m) Lentiviral Particles: sc-146517-V.

Molecular Weight of KLHL17: 70 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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 for detailed protocols and support products.