

# KLHL25 (E-14): sc-131968

## BACKGROUND

KLHL25 (Ectoderm-neural cortex protein 2, ENC2) is a cytoplasmic protein that contains six Kelch regions and a single BTB (POZ) domain. KLHL25 is highly homologous to another Kelch-like protein, ENC1, and it is believed to operate in a manner similar to other Kelch-domain containing proteins. Kelch-domain repeat containing proteins often act as modifiers of Actin fibers. Expressed early in embryogenesis, ENC1 helps to mediate neuronal process formation. It also appears to have a role in neural crest cell differentiation. KLHL25 likely functions as a substrate specific adapter for protein ubiquitinating complexes. KLHL25 is expressed in most tissues with highest expression in brain and liver.

## REFERENCES

- Hernandez, M.C., et al. 1997. ENC-1: a novel mammalian Kelch-related gene specifically expressed in the nervous system encodes an Actin-binding protein. *J. Neurosci.* 17: 3038-3051.
- Seng, S., et al. 2006. KLHL1/MRP2 mediates neurite outgrowth in a glycogen synthase kinase 3 $\beta$ -dependent manner. *Mol. Cell. Biol.* 26: 8371-8384.
- Peeters, T., et al. 2006. Kelch-repeat proteins interacting with the G $\alpha$  protein Gpa2 bypass adenylate cyclase for direct regulation of protein kinase A in yeast. *Proc. Natl. Acad. Sci. USA* 103: 13034-13039.
- Angers, S., et al. 2006. The KLHL12-Cullin-3 ubiquitin ligase negatively regulates the Wnt- $\beta$ -catenin pathway by targeting dishevelled for degradation. *Nat. Cell Biol.* 8: 348-357.
- Peeters, T., et al. 2007. Directly from G $\alpha$  to protein kinase A: the Kelch repeat protein bypass of adenylate cyclase. *Trends Biochem. Sci.* 32: 547-554.
- Niranjan, T., et al. 2007. Kelch repeat protein interacts with the yeast G $\alpha$  subunit Gpa2p at a site that couples receptor binding to guanine nucleotide exchange. *J. Biol. Chem.* 282: 24231-24238.
- Nacak, T.G., et al. 2007. The BTB-Kelch protein KLEIP controls endothelial migration and sprouting angiogenesis. *Circ. Res.* 100: 1155-1163.
- Aromolaran, K.A., et al. 2007. The Kelch-like protein 1 modulates P/Q-type calcium current density. *Neuroscience* 145: 841-850.

## CHROMOSOMAL LOCATION

Genetic locus: KLHL25 (human) mapping to 15q25.3; Klhl25 (mouse) mapping to 7 D2.

## SOURCE

KLHL25 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHL25 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131968 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KLHL25 (E-14) is recommended for detection of KLHL25 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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.

KLHL25 (E-14) is also recommended for detection of KLHL25 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KLHL25 siRNA (h): sc-89948, KLHL25 siRNA (m): sc-146525, KLHL25 shRNA Plasmid (h): sc-89948-SH, KLHL25 shRNA Plasmid (m): sc-146525-SH, KLHL25 shRNA (h) Lentiviral Particles: sc-89948-V and KLHL25 shRNA (m) Lentiviral Particles: sc-146525-V.

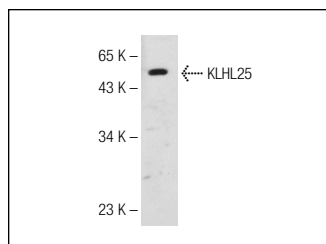
Molecular Weight of KLHL25: 66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

## 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



KLHL25 (E-14): sc-131968. Western blot analysis of KLHL25 expression in HeLa whole cell lysate.

## RESEARCH USE

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