SANTA CRUZ BIOTECHNOLOGY, INC.

KLHL23 (E-13): sc-137552

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

KLHL23 (kelch-like protein 23), also known as DITHP, is a 558 amino acid protein that contains one BACK (BTB/Kelch associated) domain, 6 kelch repeats and one BTB (POZ) domain. The gene encoding KLHL23 maps to human chromosome 2q31.1. As the second largest human chromosome, chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome is due to mutations in the ALMS1 gene.

REFERENCES

1. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
2. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
3. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
4. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. Nat. Genet. 31: 79-83.
5. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
6. Wouters, M.M., et al. 2006. Downregulation of two novel genes in Sl/Sld and W(LacZ)/Wv mouse jejunum. Biochem. Biophys. Res. Commun. 346: 491-500.
7. Sowa, M.E., et al. 2009. Defining the human deubiquitinating enzyme interaction landscape. Cell 138: 389-403.

CHROMOSOMAL LOCATION

Genetic locus: KLHL23 (human) mapping to 2q31.1; Klhl23 (mouse) mapping to 2 C2.

SOURCE

KLHL23 (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of KLHL23 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.

PROTOCOLS

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137552 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KLHL23 (E-13) is recommended for detection of KLHL23 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other KLHL family members.

KLHL23 (E-13) is also recommended for detection of KLHL23 in additional species, including porcine.

Suitable for use as control antibody for KLHL23 siRNA (h): sc-94431, KLHL23 siRNA (m): sc-146523, KLHL23 shRNA Plasmid (h): sc-94431-SH, KLHL23 shRNA Plasmid (m): sc-146523-SH, KLHL23 shRNA (h) Lentiviral Particles: sc-94431-V and KLHL23 shRNA (m) Lentiviral Particles: sc-146523-V.

Molecular Weight of KLHL23: 64 kDa.

Positive Controls: PC-3 cell lysate: sc-2220.

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) 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.

RESEARCH USE

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