

KLHL21 (E-19): sc-247370

BACKGROUND

KLHL21 (Kelch-like protein 21) is a 597 amino acid protein that localizes to the cytoplasm, cytoskeleton and spindle midzone. Functioning as a substrate-specific adapter of BCR E3 ubiquitin-protein ligase complex which is required for efficient chromosome alignment and cytokinesis, KLHL21 contains one BACK (BTB/Kelch associated) domain, one BTB (POZ) domain and 6 Kelch repeats. The gene that encodes KLHL21 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma. KLHL21 exists as two alternatively spliced isoforms.

REFERENCES

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2. Eudy, J.D., et al. 1998. Isolation of a gene encoding a novel member of the nuclear receptor superfamily from the critical region of Usher syndrome type II α at 1q41. *Genomics* 50: 382-384.
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4. Lau, E.K., et al. 1999. Two novel polymorphic sequences in the glucocerebrosidase gene region enhance mutational screening and founder effect studies of patients with Gaucher disease. *Hum. Genet.* 104: 293-300.
5. Bowling, E.L., et al. 2000. The Stickler syndrome: case reports and literature review. *Optometry* 71: 177-182.
6. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
7. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
8. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. *Neurobiol. Dis.* 31: 309-315.

CHROMOSOMAL LOCATION

Genetic locus: KLHL21 (human) mapping to 1p36.31; Klhl21 (mouse) mapping to 4 E2.

SOURCE

KLHL21 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHL21 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 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-247370 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KLHL21 (E-19) is recommended for detection of KLHL21 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

KLHL21 (E-19) is also recommended for detection of KLHL21 in additional species, including canine and bovine.

Suitable for use as control antibody for KLHL21 siRNA (h): sc-78834, KLHL21 siRNA (m): sc-146521, KLHL21 shRNA Plasmid (h): sc-78834-SH, KLHL21 shRNA Plasmid (m): sc-146521-SH, KLHL21 shRNA (h) Lentiviral Particles: sc-78834-V and KLHL21 shRNA (m) Lentiviral Particles: sc-146521-V.

Molecular Weight of KLHL21: 67/60 kDa.

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) 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.

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.