SANTA CRUZ BIOTECHNOLOGY, INC.

KLHDC4 (D-10): sc-398672

BACKGROUND

KLHDC4 (kelch domain-containing protein 4) is a 520 amino acid protein that contains six kelch repeats and exists as three alternatively spliced isoforms. The gene encoding KLHDC4 maps to human chromosome 16q24.2 and mouse chromosome 8 E1. Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, through the CREBBP gene which encodes a critical CREB binding protein. Signs of Rubinstein-Taybi include mental retardation and predisposition to tumor growth and white blood cell neoplasias. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene.

REFERENCES

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3. Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. Nat. Genet. 26: 370-374.
4. Adams, J., et al. 2000. The kelch repeat superfamily of proteins: propellers of cell function. Trends Cell Biol. 10: 17-24.
5. Kuhlenbäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. Neurology 58: 1273-1276.
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CHROMOSOMAL LOCATION

Genetic locus: KLHDC4 (human) mapping to 16q24.2; Klhdc4 (mouse) mapping to 8 E1.

SOURCE

KLHDC4 (D-10) is a mouse monoclonal antibody raised against amino acids 386-489 mapping near the C-terminus of KLHDC4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KLHDC4 (D-10) is recommended for detection of KLHDC4 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 KLHDC4 siRNA (h): sc-92996, KLHDC4 siRNA (m): sc-146503, KLHDC4 shRNA Plasmid (h): sc-92996-SH, KLHDC4 shRNA Plasmid (m): sc-146503-SH, KLHDC4 shRNA (h) Lentiviral Particles: sc-92996-V and KLHDC4 shRNA (m) Lentiviral Particles: sc-146503-V.

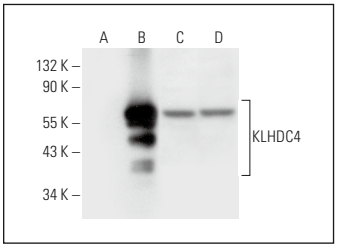
Molecular Weight of KLHDC4 isoforms: 58/52/54 kDa.

Positive Controls: KLHDC4 (h): 293T Lysate: sc-114032, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

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.

DATA



KLHDC4 (D-10): sc-398672. Western blot analysis of KLHDC4 expression in non-transfected 293T: sc-117752 (**A**), human KLHDC4 transfected 293T: sc-114032 (**B**), Jurkat (**C**) and HeLa (**D**) whole cell lysates.

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.