

KLHDC4 (E-4): sc-515459

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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- 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.
- Adams, J., et al. 2000. The kelch repeat superfamily of proteins: propellers of cell function. *Trends Cell Biol.* 10: 17-24.
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CHROMOSOMAL LOCATION

Genetic locus: KLHDC4 (human) mapping to 16q24.2.

SOURCE

KLHDC4 (E-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 455-472 near the C-terminus of KLHDC4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515459 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

KLHDC4 (E-4) is recommended for detection of KLHDC4 of 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 shRNA Plasmid (h): sc-92996-SH and KLHDC4 shRNA (h) Lentiviral Particles: sc-92996-V.

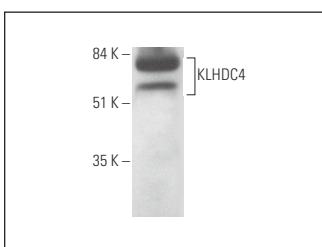
Molecular Weight of KLHDC4 isoforms: 58/52/54 kDa.

Positive Controls: human stomach extract: sc-363780.

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 (E-4): sc-515459. Western blot analysis of KLHDC4 expression in human stomach tissue extract.

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.