SANTA CRUZ BIOTECHNOLOGY, INC.

# KLHDC4 (H-9): sc-398467

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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


1. Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. Clin. Genet. 23: 318-320.
2. Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. Am. J. Hum. Genet. 52: 249-254.
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.


## CHROMOSOMAL LOCATION

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

## SOURCE

KLHDC4 (H-9) is a mouse monoclonal antibody raised against amino acids 11-60 mapping near the N-terminus of KLHDC4 of mouse origin.

## PRODUCT

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

KLHDC4 (H-9) is available conjugated to agarose (sc-398467 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398467 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398467 PE), fluorescein (sc-398467 FITC), Alexa Fluor® 488 (sc-398467 AF488), Alexa Fluor® 546 (sc-398467 AF546), Alexa Fluor® 594 (sc-398467 AF594) or Alexa Fluor® 647 (sc-398467 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398467 AF680) or Alexa Fluor® 790 (sc-398467 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

KLHDC4 (H-9) 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.

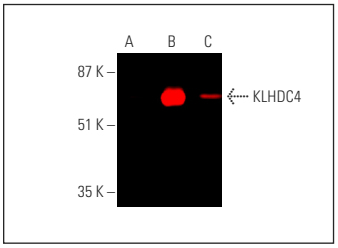
Molecular Weight of KLHDC4 isoforms: 58/52/54 kDa.

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

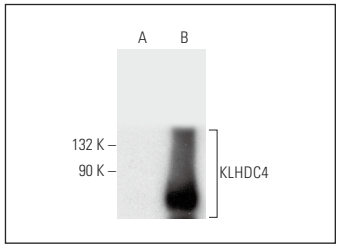
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




KLHDC4 (H-9): sc-398467. Near-infrared western blot analysis of ZKLHDC4 expression in non-transfected 293T: sc-117752 (**A**), human KLHDC4 transfected 293T: sc-114032 (**B**) and Jurkat (**C**) whole cell lysates. Detection reagent used: m-IgGλ BP-CFL 790: sc-516195.




KLHDC4 (H-9): sc-398467. Western blot analysis of KLHDC4 expression in non-transfected: sc-117752 (**A**) and human KLHDC4 transfected: sc-114032 (**B**) 293T 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.