

# KLHDC9 (G-12): sc-160064

## BACKGROUND

The BTB (Broad-Complex, Tramtrack and Bric a brac) domain, also known as the POZ (Poxvirus and Zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. The Kelch domain-containing protein 9 (KLHDC9), also designated Kelch/ankyrin repeat-containing cyclin A1-interacting protein (KARCA1), contains 3 Kelch repeats and interacts with CCNA1. The gene encoding KLHDC9 maps to chromosome 1, the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene of human chromosome 1, which encodes lamin A. Stickler syndrome, Parkinsons, Gaucher disease, familial adenomatous polyposis and Usher syndrome are also associated with chromosome 1. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

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2. Zollman, S., et al. 1994. The BTB domain, found primarily in zinc finger proteins, defines an evolutionarily conserved family that includes several developmentally regulated genes in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 91: 10717-10721.
3. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
4. Diederichs, S., et al. 2004. Identification of interaction partners and substrates of the cyclin A1-CDK2 complex. *J. Biol. Chem.* 279: 33727-33741.
5. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
6. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
7. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.

## CHROMOSOMAL LOCATION

Genetic locus: KLHDC9 (human) mapping to 1q23.3; Klhdc9 (mouse) mapping to 1 H3.

## SOURCE

KLHDC9 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHDC9 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160064 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KLHDC9 (G-12) is recommended for detection of KLHDC9 isoforms 1-3 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 KLHDC family members.

KLHDC9 (G-12) is also recommended for detection of KLHDC9 isoforms 1-3 in additional species, including bovine.

Suitable for use as control antibody for KLHDC9 siRNA (h): sc-78893, KLHDC9 siRNA (m): sc-146510, KLHDC9 shRNA Plasmid (h): sc-78893-SH, KLHDC9 shRNA Plasmid (m): sc-146510-SH, KLHDC9 shRNA (h) Lentiviral Particles: sc-78893-V and KLHDC9 shRNA (m) Lentiviral Particles: sc-146510-V.

Molecular Weight of KLHDC9: 38 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.