

KLHDC5 (E-14): sc-168370

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 C₂H₂-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 5 (KLHDC5) contains one BTB (POZ) domain and six Kelch repeats suggesting a role in transcription regulation. KLHDC5 is a 505 amino acid protein that is phosphorylated upon DNA damage, probably by ATM or ATR. KLHDC5 is encoded by a gene located on human chromosome 12p11.22. Encoding over 1,100 genes, chromosome 12 comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

1. Bardwell, V.J., et al. 1994. The POZ domain: a conserved protein-protein interaction motif. *Genes Dev.* 8: 1664-1677.
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. Allen, T.L., et al. 1996. Cytogenetic and molecular analysis in trisomy 12p. *Am. J. Med. Genet.* 63: 250-256.
4. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
5. Gilbert, F., et al. 2000. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 12. Genet. Test.* 4: 319-333.
6. Riaz, N., et al. 2005. Genomewide significant linkage to stuttering on chromosome 12. *Am. J. Hum. Genet.* 76: 647-651.

CHROMOSOMAL LOCATION

Genetic locus: KLHDC5 (human) mapping to 12p11.22; Klhdc5 (mouse) mapping to 6 G3.

SOURCE

KLHDC5 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLHDC5 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-168370 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

KLHDC5 (E-14) is recommended for detection of KLHDC5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other KLHDC family members.

KLHDC5 (E-14) is also recommended for detection of KLHDC5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KLHDC5 siRNA (h): sc-95696, KLHDC5 siRNA (m): sc-146504, KLHDC5 shRNA Plasmid (h): sc-95696-SH, KLHDC5 shRNA Plasmid (m): sc-146504-SH, KLHDC5 shRNA (h) Lentiviral Particles: sc-95696-V and KLHDC5 shRNA (m) Lentiviral Particles: sc-146504-V.

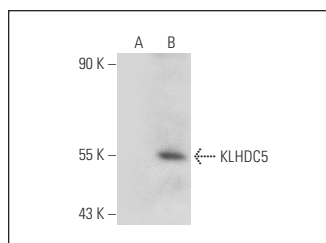
Molecular Weight of KLHDC5: 57 kDa.

Positive Controls: KLHDC5 (h): 293T Lysate: sc-112109.

RECOMMENDED SECONDARY REAGENTS/ DATA

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



KLHDC5 (E-14): sc-168370. Western blot analysis of KLHDC5 expression in non-transfected: sc-117752 (A) and human KLHDC5 transfected: sc-112109 (B) 293T whole cell lysates.

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.