

HDDC2 (C-18): sc-243000

BACKGROUND

Enzymes consisting of an HD domain are predicted to exhibit phosphohydrolase activity. These enzymes are suggested to participate in nucleic acid metabolism, signal transduction and possibly other functions in bacteria, archaea and eukaryotes. The HD domain consists of highly conserved residues, specifically histidines or aspartates. HDDC2 (HD domain-containing protein 2), also known as hepatitis C virus NS5A-transactivated protein 2, C6orf74, NS5ATP2 or CGI-130, is a 204 amino acid protein that contains one HD domain and belongs to the HDDC2 family. Existing as three alternatively spliced isoforms, the gene encoding HDDC2 maps to human chromosome 6q22.31. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Porphyria cutanea tarda, Parkinson's disease and Stickler syndrome have all been associated with genes located on chromosome 6.

REFERENCES

1. Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. *Hum. Mol. Genet.* 3: 1561-1564.
2. Aravind, L., et al. 1998. The HD domain defines a new superfamily of metal-dependent phosphohydrolases. *Trends Biochem. Sci.* 23: 469-472.
3. Mungall, A.J., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.
4. Yang, Q., et al. 2004. Cloning and identification of NS5ATP2 gene and its spliced variant transactivated by hepatitis C virus non-structural protein 5A. *World J. Gastroenterol.* 10: 1735-1739.
5. Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 153B: 29-37.

CHROMOSOMAL LOCATION

Genetic locus: HDDC2 (human) mapping to 6q22.31; Hddc2 (mouse) mapping to 10 A4.

SOURCE

HDDC2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HDDC2 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-243000 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

HDDC2 (C-18) is recommended for detection of HDDC2 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 HDDC3.

HDDC2 (C-18) is also recommended for detection of HDDC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HDDC2 siRNA (h): sc-95501, HDDC2 siRNA (m): sc-145912, HDDC2 shRNA Plasmid (h): sc-95501-SH, HDDC2 shRNA Plasmid (m): sc-145912-SH, HDDC2 shRNA (h) Lentiviral Particles: sc-95501-V and HDDC2 shRNA (m) Lentiviral Particles: sc-145912-V.

Molecular Weight of HDDC2 isoform 1: 23 kDa.

Molecular Weight of HDDC2 isoform 2: 20 kDa.

Molecular Weight of HDDC2 isoform 3: 8 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.

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.