

HDHD2 (K-17): sc-84839

BACKGROUND

HDHD2 (haloacid dehalogenase-like hydrolase domain containing 2) is also known as DKFZp564D1378 and is a 259 amino acid protein that is expressed as 2 isoforms produced by alternative splicing. HDHD2 belongs to the HAD-like hydrolase superfamily, which contains a group of hydrolase enzymes that differ from the α/β hydrolase family based on structure. This family of hydrolase enzymes includes L-2-haloacid dehalogenase, epoxide hydrolases and phosphatases. HDHD2 has two active sites, an L-2-haloacid dehalogenase and a carboxylate group. The L-2-haloacid dehalogenase active site catalyzes the hydrolytic dehalogenation of D- and L-2-haloalkanoic acids, producing L- and D-2-hydroxyalkanoic acids. The gene encoding HDHD2 maps to human chromosome 18. Deletions within chromosome 18q21.1 can lead to deafness, blindness or mild facial dysmorphism. In addition, there are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include Trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

REFERENCES

1. Cotter, F., et al. 1990. Direct sequence analysis of the 14q+ and 18q- chromosome junctions in follicular lymphoma. *Blood* 76: 131-135.
2. Cotter, F.E., et al. 1991. Direct sequence analysis of 14q+ and 18q- chromosome junctions at the MBR and MCR revealing clustering within the MBR in follicular lymphoma. *Ann. Oncol.* 2: 93-97.
3. Carstea, E.D., et al. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. *Proc. Natl. Acad. Sci. USA* 90: 2002-2004.
4. Grosso, S., et al. 2005. Chromosome 18 aberrations and epilepsy: a review. *Am. J. Med. Genet. A* 134A: 88-94.
5. Semrud-Clikeman, M., et al. 2005. Cognitive ability predicts degree of genetic abnormality in participants with 18q deletions. *J. Int. Neuropsychol. Soc.* 11: 584-590.

CHROMOSOMAL LOCATION

Genetic locus: HDHD2 (human) mapping to 18q21.1; Hdhd2 (mouse) mapping to 18 E3.

SOURCE

HDHD2 (K-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of HDHD2 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84839 P, (100 μ g 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

HDHD2 (K-17) is recommended for detection of HDHD2 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

HDHD2 (K-17) is also recommended for detection of HDHD2 in additional species, including equine, canine, bovine, porcine and avian.

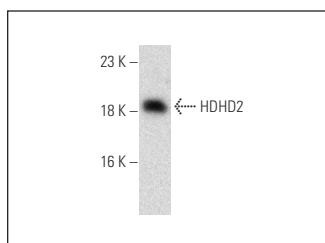
Suitable for use as control antibody for HDHD2 siRNA (h): sc-75234, HDHD2 siRNA (m): sc-145914, HDHD2 shRNA Plasmid (h): sc-75234-SH, HDHD2 shRNA Plasmid (m): sc-145914-SH, HDHD2 shRNA (h) Lentiviral Particles: sc-75234-V and HDHD2 shRNA (m) Lentiviral Particles: sc-145914-V.

Molecular Weight of HDHD2 isoforms: 29/19 kDa.

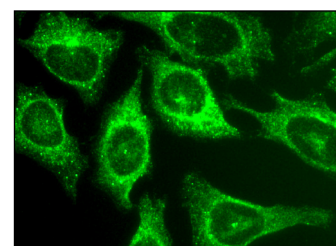
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HDHD2 (K-17): sc-84839. Western blot analysis of HDHD2 expression in mouse brain tissue extract.



HDHD2 (K-17): sc-84839. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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.