

ABHD10 (C-15): sc-99753

BACKGROUND

The α/β hydrolase superfamily includes diverse members that are involved in important biochemical processes and are related to various diseases. They have unrelated sequences, various substrates and different kinds of catalytic activities, yet they share the same canonical α/β hydrolase fold, which consists of an eight-stranded parallel α/β structure. They are also characterized by a catalytic triad composed of a histidine, an acid and a nucleophile. Members of this superfamily are often drug targets for treating diseases, such as diabetes, Alzheimer's disease, obesity and blood clotting disorders. The Ab hydrolase domain containing (ABHD) gene subfamily is comprised of 15 relatively uncharacterized members, most of which utilize a serine nucleophile to form the G-X-S-X-G nucleophile elbow. ABHD10 is a 306 amino acid protein that localizes to mitochondria.

REFERENCES

1. Ollis, D.L., et al. 1992. The α/β hydrolase fold. *Protein Eng.* 5: 197-211.
2. Holmquist, M. 2000. α/β -hydrolase fold enzymes: structures, functions and mechanisms. *Curr. Protein Pept. Sci.* 1: 209-235.
3. Lefèvre, C., et al. 2001. Mutations in CGI-58, the gene encoding a new protein of the esterase/lipase/thioesterase subfamily, in Chanarin-Dorfman syndrome. *Am. J. Hum. Genet.* 69: 1002-1012.
4. Edgar, A.J., et al. 2002. Cloning and tissue distribution of three murine α/β hydrolase fold protein cDNAs. *Biochem. Biophys. Res. Commun.* 292: 617-625.
5. Simon, G.M., et al. 2006. Endocannabinoid biosynthesis proceeding through glycerophospho-N-acyl ethanolamine and a role for α/β -hydrolase 4 in this pathway. *J. Biol. Chem.* 281: 26465-26472.
6. Miyata, K., et al. 2008. Elevated mature macrophage expression of human ABHD2 gene in vulnerable plaque. *Biochem. Biophys. Res. Commun.* 365: 207-213.
7. Li, F., et al. 2008. An unannotated α/β hydrolase superfamily member, ABHD6 differentially expressed among cancer cell lines. *Mol. Biol. Rep.* 36: 691-696.

CHROMOSOMAL LOCATION

Genetic locus: ABHD10 (human) mapping to 3q13.2.

SOURCE

ABHD10 (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ABHD10 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-99753 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ABHD10 (C-15) is recommended for detection of ABHD10 of 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 ABHD family members.

ABHD10 (C-15) is also recommended for detection of ABHD10 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ABHD10 siRNA (h): sc-78321, ABHD10 shRNA Plasmid (h): sc-78321-SH and ABHD10 shRNA (h) Lentiviral Particles: sc-78321-V.

Molecular Weight of ABHD10: 34 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) 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.

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 or our catalog for detailed protocols and support products.