

ABHD11 (D-17): sc-138080

BACKGROUND

The α/β hydrolase superfamily comprise diverse members that are involved in important biochemical processes and 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 mostly uncharacterized members, most of which utilize a serine nucleophile to form the G-X-S-X-G nucleophile elbow. ABHD11 is a 315 amino acid protein that belongs to the ABHD family. Ubiquitously expressed, ABHD11 exists as five alternatively spliced isoforms.

REFERENCES

- Ollis, D.L., Cheah, E., Cygler, M., Dijkstra, B., Frolow, F., Franken, S.M., Harel, M., Remington, S.J., Silman, I. and Schrag, J. 1992. The α/β hydrolase fold. *Protein Eng.* 5: 197-211.
- Holmquist, M. 2000. α/β -hydrolase fold enzymes: structures, functions and mechanisms. *Curr. Protein Pept. Sci.* 1: 209-235.
- Lefèvre, C., Jobard, F., Caux, F., Bouadjar, B., Karaduman, A., Heilig, R., Lakhdar, H., Wollenberg, A., Verret, J.L., Weissenbach, J., Ozgüc, M., Lathrop, M., Prud'homme, J.F. and Fischer, J. 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.
- Edgar, A.J. and Polak, J.M. 2002. Cloning and tissue distribution of three murine α/β hydrolase fold protein cDNAs. *Biochem. Biophys. Res. Commun.* 292: 617-625.
- Simon, G.M. and Cravatt, B.F. 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.
- Miyata, K., Nakayama, M., Mizuta, S., Hokimoto, S., Sugamura, K., Oshima, S., Oike, Y., Sugiyama, S., Ogawa, H. and Yamamura, K. 2008. Elevated mature macrophage expression of human ABHD2 gene in vulnerable plaque. *Biochem. Biophys. Res. Commun.* 365: 207-213.

CHROMOSOMAL LOCATION

Genetic locus: ABHD11 (human) mapping to 7q11.23; Abhd11 (mouse) mapping to 5 G2.

SOURCE

ABHD11 (D-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ABHD11 of human origin.

STORAGE

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

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-138080 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ABHD11 (D-17) is recommended for detection of ABHD11 isoforms A, D and E of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with ABHD family members or ABHD11 isoforms B or C.

ABHD11 (D-17) is also recommended for detection of ABHD11 isoforms A, D and E in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ABHD11 siRNA (h): sc-89872, ABHD11 siRNA (m): sc-140765, ABHD11 shRNA Plasmid (h): sc-89872-SH, ABHD11 shRNA Plasmid (m): sc-140765-SH, ABHD11 shRNA (h) Lentiviral Particles: sc-89872-V and ABHD11 shRNA (m) Lentiviral Particles: sc-140765-V.

Molecular Weight of ABHD11: 35 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.

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.