

ABHD14B (E-12): sc-515084

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 eightstranded 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. ABHD1 plays a role in metabolizing smoking xenobiotics. ABHD2 participates in the development of atherosclerosis. ABHD4 is involved in an alternative synthesis pathway of NAE. Mutations in ABHD5 contribute to Chanarin-Dorfman syndrome. ABHD6 may play a role in nervous system metabolism and signaling. ABHD14B is a 210 amino acid protein that localizes to both the cytoplasm and the nucleus where it exists as 2 alternatively spliced isoforms.

REFERENCES

- Ollis, D.L., et al. 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.
- Padmanabhan, B., et al. 2000. Purification, crystallization and preliminary X-ray crystallographic analysis of human CCG1-interacting factor B. *Acta Crystallogr. D Biol. Crystallogr.* 56: 1479-1481.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: ABHD14B (human) mapping to 3p21.2; Abhd14b (mouse) mapping to 9 F1.

SOURCE

ABHD14B (E-12) is a mouse monoclonal antibody raised against amino acids 156-207 mapping at the C-terminus of ABHD14B of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ABHD14B (E-12) is available conjugated to agarose (sc-515084 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515084 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515084 PE), fluorescein (sc-515084 FITC), Alexa Fluor® 488 (sc-515084 AF488), Alexa Fluor® 546 (sc-515084 AF546), Alexa Fluor® 594 (sc-515084 AF594) or Alexa Fluor® 647 (sc-515084 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515084 AF680) or Alexa Fluor® 790 (sc-515084 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ABHD14B (E-12) is recommended for detection of ABHD14B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ABHD14B siRNA (h): sc-77948, ABHD14B siRNA (m): sc-140769, ABHD14B shRNA Plasmid (h): sc-77948-SH, ABHD14B shRNA Plasmid (m): sc-140769-SH, ABHD14B shRNA (h) Lentiviral Particles: sc-77948-V and ABHD14B shRNA (m) Lentiviral Particles: sc-140769-V.

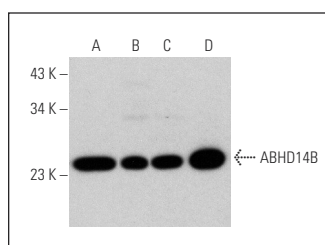
Molecular Weight of ABHD14B: 22 kDa.

Positive Controls: human liver extract: sc-363766, T-47D cell lysate: sc-2293 or A2058 whole cell lysate: sc-364178.

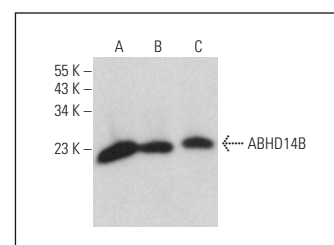
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ABHD14B (E-12): sc-515084. Western blot analysis of ABHD14B expression in T-47D (A), SK-MEL-28 (B) and A2058 (C) whole cell lysates and human liver tissue extract (D).



ABHD14B (E-12): sc-515084. Western blot analysis of ABHD14B expression in T-47D (A), MIA PaCa-2 (B) and Caki-1 (C) whole cell lysates.

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 for detailed protocols and support products.