

ABP1 (F-9): sc-398006

BACKGROUND

Amine oxidase, copper containing 1 (APB1), also known as kidney amine oxidase (KAO), diamine oxidase (DAO) and amiloride-binding protein (ABP), is a member of the copper/topaquinone oxidase family. Notable compounds degraded by ABP1 include putrescine, histamine, spermine and spermidine, as well as substances involved in allergic and immune responses, cell proliferation, tissue differentiation, tumor formation, and possibly apoptosis. The secreted ABP1 protein can be detected in the extracellular space of placenta and kidney. Placental ABP1 is thought to play a role in the regulation of female reproductive function. ABP1 consists of two isoforms due to alternative splicing. Isoform 1 is the common 751 amino acid form, while isoform 2 contains the additional 19 amino acids between residues 619 and 637.

REFERENCE

1. Valette, G., et al. 1954. Intracellular distribution of diamine oxidase (histaminase) in the pig kidney. C. R. Seances Soc. Biol. Fil. 148: 1762-1764.
2. Kapeller-Adler, R., et al. 1963. Purification and identification of hog-kidney histaminase. Biochim. Biophys. Acta 67: 542-565.
3. Bardsley, W.G., et al. 1972. Oxidation of p-dimethylaminomethylbenzylamine by pig kidney diamine oxidase. A new method for spectrophotometric assay. Biochem. J. 127: 875-879.
4. Matsumoto, T., et al. 1984. 3-(p-hydroxyphenyl)propionic acid as a new fluorogenic reagent for amine oxidase assays. Anal. Biochem. 138: 133-136.
5. Silva, I.J., et al. 1996. Superoxide anion radical generation during the oxidation of various amines by diamine oxidase. Free Radic. Res. 24: 167-175.
6. Gokturk, C., et al. 2004. Semicarbazide-sensitive amine oxidase in transgenic mice with diabetes. Biochem. Biophys. Res. Commun. 325: 1013-1020.

CHROMOSOMAL LOCATION

Genetic locus: AOC1 (human) mapping to 7q36.1.

SOURCE

ABP1 (F-9) is a mouse monoclonal antibody raised against amino acids 351-429 mapping within an internal region of ABP1 of human origin.

PRODUCT

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

ABP1 (F-9) is available conjugated to agarose (sc-398006 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398006 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398006 PE), fluorescein (sc-398006 FITC), Alexa Fluor® 488 (sc-398006 AF488), Alexa Fluor® 546 (sc-398006 AF546), Alexa Fluor® 594 (sc-398006 AF594) or Alexa Fluor® 647 (sc-398006 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398006 AF680) or Alexa Fluor® 790 (sc-398006 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ABP1 (F-9) is recommended for detection of ABP1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 ABP1 siRNA (h): sc-62519, ABP1 shRNA Plasmid (h): sc-62519-SH and ABP1 shRNA (h) Lentiviral Particles: sc-62519-V.

Molecular Weight of ABP1 monomer: 92 kDa.

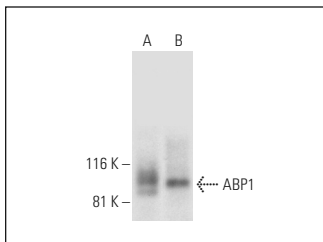
Molecular Weight of ABP1 dimer: 180 kDa.

Positive Controls: human kidney extract: sc-363764 or human placenta extract: sc-363772.

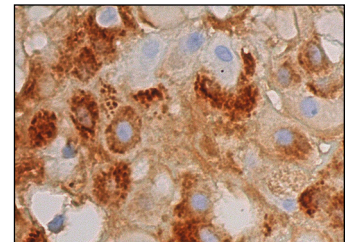
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ABP1 (F-9): sc-398006. Western blot analysis of ABP1 expression in human placenta (A) and human kidney (B) tissue extracts.



ABP1 (F-9): sc-398006. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of decidual cells.

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.