

Abp1 (V-15): sc-67660

BACKGROUND

Amiloride-binding protein 1, amine oxidase, copper-containing (Abp1), also known as diamine oxidase (DAO), is a member of the copper/topaquinone oxidase family. The human homolog is known as kidney amine oxidase (KAO), DAO or ABP1. 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.

REFERENCES

- Valette, G., et al. 1954. Intracellular distribution of diamine oxidase (histaminase) in the pig kidney. *C.R. Seances Soc. Biol. Fil.* 148: 1762-1764.
- Kapeller-Adler, R., et al. 1963. Purification and identification of hog-kidney histaminase. *Biochim. Biophys. Acta* 67: 542-565.
- 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.
- Matsumoto, T., et al. 1984. 3-(p-hydroxyphenyl)propionic acid as a new fluorogenic reagent for amine oxidase assays. *Anal. Biochem.* 138: 133-136.
- 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.
- Gokturk, C., et al. 2004. Semicarbazide-sensitive amine oxidase in transgenic mice with diabetes. *Biochem. Biophys. Res. Commun.* 325: 1013-1020.
- Stolen, C.M., et al. 2004. Semicarbazide sensitive amine oxidase over-expression has dual consequences: insulin mimicry and diabetes-like complications. *FASEB J.* 18: 702-704.
- Mura, A., et al. 2006. Properties of copper-free pig kidney amine oxidase: role of topa quinone. *FEBS Lett.* 580: 4317-4324.
- Mura, A., et al. 2007. An important lysine residue in copper/quinone-containing amine oxidases. *FEBS J.* 274: 2585-2595.

CHROMOSOMAL LOCATION

Genetic locus: Abp1 (mouse) mapping to 6 B2.3.

SOURCE

Abp1 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Abp1 of mouse origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-67660 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Abp1 (V-15) is recommended for detection of Abp1 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Abp1 siRNA (m): sc-62520, Abp1 shRNA Plasmid (m): sc-62520-SH and Abp1 shRNA (m) Lentiviral Particles: sc-62520-V.

Molecular Weight of Abp1 monomer: 92 kDa.

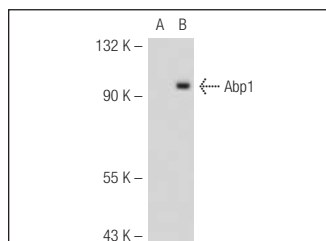
Molecular Weight of Abp1 dimer: 180 kDa.

Positive Controls: NRK whole cell lysate, KNRK whole cell lysate: sc-2214 or Abp1 (m2): 293T Lysate: sc-118173.

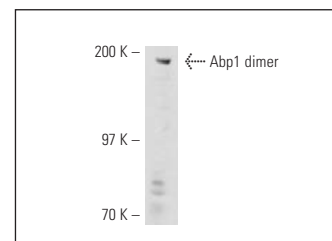
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Abp1 (V-15): sc-67660. Western blot analysis of Abp1 expression in non-transfected: sc-117752 (A) and mouse Abp1 transfected: sc-118173 (B) 293T whole cell lysates.



Abp1 (V-15): sc-67660. Western blot analysis of Abp1 expression in NRK whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.