SANTA CRUZ BIOTECHNOLOGY, INC.

AGTRAP (S-14): sc-162504

BACKGROUND

AGTRAP (angiotensin II receptor-associated protein), also known as ATRAP, is a transmembrane protein that localizes to the Golgi apparatus, the endoplasmic reticulum (ER), endocytotic vesicles and perinuclear vesicular structures. Highly expressed in heart, kidney, pancreas and thyroid, AGTRAP functions as a negative regulator of the angiotensin II type I receptor (AT1). AGTRAP controls receptor internalization and receptor desensitization events (such as phosphorylation) and, through this control, decreases angiotensin II signaling, thereby reducing rates of cell proliferation and angiotensin II-stimulated transcriptional activity. AGTRAP is 159 amino acids in length and is able to bind RACK1 (receptor for activated C kinase 1); an association that is thought to help recruit AGTRAP to AT1. Two isoforms of AGTRAP exist due to alternative splicing events.

REFERENCES

1. Daviet, L., et al. 1999. Cloning and characterization of ATRAP, a novel protein that interacts with the angiotensin II type 1 receptor. J. Biol. Chem. 274: 17058-17062.
2. Cui, T., et al. 2000. ATRAP, novel AT1 receptor associated protein, enhances internalization of AT1 receptor and inhibits vascular smooth muscle cell growth. Biochem. Biophys. Res. Commun. 279: 938-941.
3. Wang, W., et al. 2002. Identification and characterization of AGTRAP, a human homolog of murine angiotensin II receptor-associated protein (AGTRAP). Int. J. Biochem. Cell Biol. 34: 93-102.
4. Lopez-Ilasaca, M., et al. 2003. The angiotensin II type I receptor-associated protein, ATRAP, is a transmembrane protein and a modulator of angiotensin II signaling. Mol. Biol. Cell 14: 5038-5050.
5. Guo, D.F., et al. 2003. Type 1 angiotensin II receptor-associated protein ARAP1 binds and recycles the receptor to the plasma membrane. Biochem. Biophys. Res. Commun. 310: 1254-1265.
6. Guo, D.F., et al. 2004. A novel angiotensin II type 1 receptor-associated protein induces cellular hypertrophy in rat vascular smooth muscle and renal proximal tubular cells. J. Biol. Chem. 279: 21109-21120.

CHROMOSOMAL LOCATION

Genetic locus: AGTRAP (human) mapping to 1p36.22.

SOURCE

AGTRAP (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of AGTRAP of human origin.

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-162504 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AGTRAP (S-14) is recommended for detection of AGTRAP 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), 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).

AGTRAP (S-14) is also recommended for detection of AGTRAP in additional species, including equine.

Suitable for use as control antibody for AGTRAP siRNA (h): sc-78862, AGTRAP shRNA Plasmid (h): sc-78862-SH and AGTRAP shRNA (h) Lentiviral Particles: sc-78862-V.

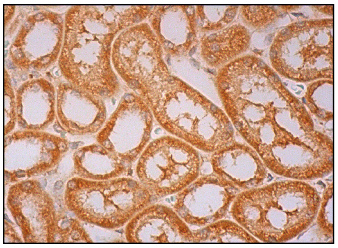
Molecular Weight of AGTRAP: 18 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or Caki-1 cell lysate: sc-2224.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



AGTRAP (S-14): sc-162504. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

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.