



AGTRAP (h2): 293T Lysate: sc-170439

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

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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-Illasaca, 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.
7. Guo, S., et al. 2005. Identification of calcium-modulating cyclophilin ligand (CAML) as transducer of Angiotensin II-mediated nuclear factor of activated T cells (NFAT) activation. *J. Biol. Chem.* 280: 12536-12541.
8. Tanaka, Y., et al. 2005. The novel angiotensin II type 1 receptor (AT1R)-associated protein ATRAP downregulates AT1R and ameliorates cardiomyocyte hypertrophy. *FEBS Lett.* 579: 1579-1586.

CHROMOSOMAL LOCATION

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

PRODUCT

AGTRAP (h2): 293T Lysate represents a lysate of human AGTRAP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

AGTRAP (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive AGTRAP antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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