AT2 (H-143): sc-9040

**BACKGROUND**

Angiotensin II (Ang II) is an important physiological effector of blood pressure and volume regulation through vasoconstriction, aldosterone release, sodium uptake and thirst stimulation. Although Ang II interacts with two types of cell surface receptors, AT1 and AT2, most of the major cardiovascular effects seem to be mediated through AT1. Molecular cloning of the AT1 protein has shown it to be a member of the G protein-associated seven transmembrane protein receptor family. Ang II treatment of cells results in activation of several signal transduction pathways as evidenced by tyrosine phosphorylation of several proteins and induction of others. PLCγ is phosphorylated after 30 seconds of treatment with Angiotensin II, indicating this as an early signal transduction event. Ang II treatment also stimulates phosphorylation of Shc, FAK and MAP kinases, and induces MKP-1, indicating stimulation of growth factor pathways. Ang II stimulation through AT1 has been shown to activate the JAK/Stat pathway involving a direct interaction between JAK2 and AT1, as demonstrated by coimmunoprecipitation. The AT1 receptor has no cytoplasmic kinase domain, but is able to function as a substrate for Src kinases and has several putative phosphorylation sites.

**CHROMOSOMAL LOCATION**

Genetic locus: AGTR2 (human) mapping to Xq23; Agtr2 (mouse) mapping to X A2.

**SOURCE**

AT2 (H-143) is a rabbit polyclonal antibody raised against amino acids 221-363 of AT2 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.

Available as agarose conjugate for immunoprecipitation, sc-9040 AC, 500 µg/0.25 ml agarose in 1 ml.

**APPLICATIONS**

AT2 (H-143) is recommended for detection of AT2 of mouse, rat and human 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), 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).

AT2 (H-143) is also recommended for detection of AT2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AT2 siRNA (h): sc-29752, AT2 siRNA (m): sc-29753, AT2 shRNA Plasmid (h): sc-29752-SH, AT2 shRNA Plasmid (m): sc-29753-SH, AT2 shRNA (h) Lentiviral Particles: sc-29752-V and AT2 shRNA (m) Lentiviral Particles: sc-29753-V.

Molecular Weight (predicted) of AT2: 41 kDa.

Molecular Weight (observed) of AT2: 50 kDa.

**STORAGE**

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

**DATA**

AT2 (H-143): sc-9040. Western blot analysis of AT2 expression in Hep G2 whole cell lysate (A) and mouse liver extract (B).

AT2 (H-143): sc-9040. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and faint cytoplasmic staining of cells in tubules.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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