**BACKGROUND**

The Renin Receptor, also known as ATP6AP2 (ATPase H⁺-transporting lysosomal accessory protein 2), ATP6IP2 (ATPase H⁺-transporting lysosomal-interacting protein 2), CAPER or MB8-9, is an ATPase-associated protein that functions as a Renin and prorenin cellular receptor. Expressed in the brain, heart, liver, kidney, placenta and pancreas, the Renin Receptor functions to activate ERK 1 and ERK 2, thereby mediating Renin-dependent cellular responses. The Renin Receptor has a subunit that associates with the transmembrane domain of V-type ATPases and interacts with Renin. These interactions increase the catalytic activity of Renin in the Renin-Angiotensin system (RAS), thus upregulating the conversion of angiotensinogen to Angiotensin. Defects in the gene encoding the Renin Receptor are implicated in mental retardation X-linked with epilepsy (MRXE), a syndromatic mental retardation characterized by epilepsy as well as delays in motor milestones and speech acquisition in infancy.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ATP6AP2 (human) mapping to Xp11.4; Atp6ap2 (mouse) mapping to X A1.1.

**SOURCE**

Renin Receptor (H-85) is a rabbit polyclonal antibody raised against amino acids 41-125 mapping within an extracellular domain of Renin Receptor 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.

**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.

**PROTOCOLS**

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

**APPLICATIONS**

Renin Receptor (H-85) is recommended for detection of Renin Receptor 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Renin Receptor (H-85) is also recommended for detection of Renin Receptor in additional species, including equine, canine, bovine and porcine.


Molecular Weight of Renin Receptor: 39 kDa.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

**SELECT PRODUCT CITATIONS**