SANTA CRUZ BIOTECHNOLOGY, INC.

Relaxin Receptor 1 (H-160): sc-50328

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs) are a protein family of transmembrane receptors that transmit an extracellular signal (ligand binding) into an intracellular signal (G protein activation). Relaxin Receptor 1, also known as Relaxin/insulin-like family peptide receptor 1, RXFP1, LGR7 or RXFPR1, is a leucine-rich repeat G protein-coupled receptor that binds Relaxins and INSL3 (insulin-like peptide 3). Expressed in brain, placenta, uterus, kidney, prostate, testis, adrenal, heart, ovary and skin, Relaxin Receptor 1 localizes to the cell membrane and contains ten LRR (leucine-rich) repeats and an LDL-receptor class A domain. Upon Relaxin or INSL3 binding to Relaxin Receptor 1, adenylate (A) cyclase is activated, leading to an increased intracellular concentration of cAMP. cAMP is a key intracellular regulator; it mediates the activities of numerous hormones, including ACTH, Glucagon and epinephrine, and plays an important role in modulating cellular activity. Due to alternative splicing events, two Relaxin Receptor 1 isoforms are expressed.

CHROMOSOMAL LOCATION

Genetic locus: RXFP1 (human) mapping to 4q32.1; Rxfp1 (mouse) mapping to 3 E3.

SOURCE

Relaxin Receptor 1 (H-160) is a rabbit polyclonal antibody raised against amino acids 61-220 mapping within an N-terminal extracellular domain of Relaxin Receptor 1 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.

RESEARCH USE

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

APPLICATIONS

Relaxin Receptor 1 (H-160) is recommended for detection of Relaxin Receptor 1 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).

Relaxin Receptor 1 (H-160) is also recommended for detection of Relaxin Receptor 1 in additional species, including porcine.

Suitable for use as control antibody for Relaxin Receptor 1 siRNA (h): sc-40177, Relaxin Receptor 1 siRNA (m): sc-40178, Relaxin Receptor 1 shRNA Plasmid (h): sc-40177-SH, Relaxin Receptor 1 shRNA Plasmid (m): sc-40178-SH, Relaxin Receptor 1 shRNA (h) Lentiviral Particles: sc-40177-V and Relaxin Receptor 1 shRNA (m) Lentiviral Particles: sc-40178-V.

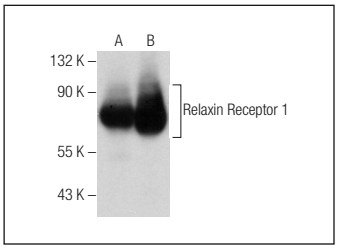
Molecular Weight of Relaxin Receptor 1: 85-95 kDa.

Positive Controls: human stomach extract: sc-363780, NIH/3T3 whole cell lysate: sc-2210 or human heart extract: sc-363763.

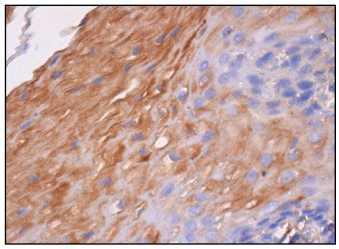
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Relaxin Receptor 1 (H-160): sc-50328. Western blot analysis of Relaxin Receptor 1 expression in human stomach (**A**) and human heart (**B**) tissue extracts.



Relaxin Receptor 1 (H-160): sc-50328. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Feugang, J.M., et al. 2011. Examination of relaxin and its receptors expression in pig gametes and embryos. Reprod. Biol. Endocrinol. 9: 10.

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.