

Relaxin Receptor 2 (L-20): sc-22015

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 2, also known as Relaxin/insulin-like family peptide receptor 2, RXFP2, LGR8, GREAT, GPR106, INSL3R or RXFP2, is a leucine-rich repeat G protein-coupled receptor that binds Relaxins and INSL3 (insulin-like peptide 3). Expressed in brain, muscle, uterus, kidney, thyroid, testis, bone marrow and peripheral blood cells, Relaxin Receptor 2 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 2, 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 and plays an important role in modulating cellular activity. Mutations in the gene encoding Relaxin Receptor 2 can lead to cryptorchidism (impaired testicular descent), a condition associated with a higher risk of infertility and testicular cancer.

REFERENCES

- Overbeek, P.A., et al. 2001. A transgenic insertion causing cryptorchidism in mice. *Genesis* 30: 26-35.
- Gorlov, I.P., et al. 2002. Mutations of the GREAT gene cause cryptorchidism. *Hum. Mol. Genet.* 11: 2309-2318.
- Kumagai, J., et al. 2002. INSL3/Leydig Insulin-like peptide activates the LGR8 receptor important in testis descent. *J. Biol. Chem.* 277: 31283-31286.

CHROMOSOMAL LOCATION

Genetic locus: RXFP2 (human) mapping to 13q13.1.

SOURCE

Relaxin Receptor 2 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Relaxin Receptor 2 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-22015 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Relaxin Receptor 2 (L-20) is recommended for detection of Relaxin Receptor 2 of 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).

Suitable for use as control antibody for Relaxin Receptor 2 siRNA (h): sc-40179, Relaxin Receptor 2 shRNA Plasmid (h): sc-40179-SH and Relaxin Receptor 2 shRNA (h) Lentiviral Particles: sc-40179-V.

Molecular Weight (predicted) of Relaxin Receptor 2: 86 kDa.

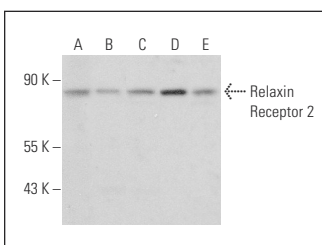
Molecular Weight (observed) of Relaxin Receptor 2: 103 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HUV-EC-C whole cell lysate: sc-364180 or IMR-32 cell lysate: sc-2409.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Relaxin Receptor 2 (L-20): sc-22015. Western blot analysis of Relaxin Receptor 2 expression in IMR-32 (A), HeLa (B), HUV-EC-C (C), Ramos (D) and K-562 (E) whole cell lysates.

RESEARCH USE

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