

Relaxin Receptor 2 (H-4): sc-374293

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.
- Hsu, S.Y., et al. 2002. Activation of orphan receptors by the hormone relaxin. *Science* 295: 671-674.

CHROMOSOMAL LOCATION

Genetic locus: RXFP2 (human) mapping to 13q13.1; Rxfp2 (mouse) mapping to 5 G3.

SOURCE

Relaxin Receptor 2 (H-4) is a mouse monoclonal antibody raised against amino acids 81-230 mapping within an extracellular domain of Relaxin Receptor 2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Relaxin Receptor 2 (H-4) is available conjugated to agarose (sc-374293 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374293 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374293 PE), fluorescein (sc-374293 FITC), Alexa Fluor® 488 (sc-374293 AF488), Alexa Fluor® 546 (sc-374293 AF546), Alexa Fluor® 594 (sc-374293 AF594) or Alexa Fluor® 647 (sc-374293 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374293 AF680) or Alexa Fluor® 790 (sc-374293 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Relaxin Receptor 2 (H-4) is recommended for detection of Relaxin Receptor 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 siRNA (m): sc-40180, Relaxin Receptor 2 shRNA Plasmid (h): sc-40179-SH, Relaxin Receptor 2 shRNA Plasmid (m): sc-40180-SH, Relaxin Receptor 2 shRNA (h) Lentiviral Particles: sc-40179-V and Relaxin Receptor 2 shRNA (m) Lentiviral Particles: sc-40180-V.

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

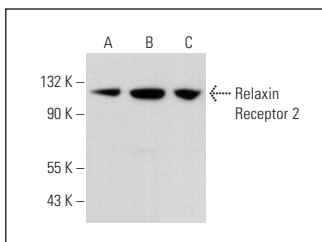
Molecular Weight (observed) of Relaxin Receptor 2: 103 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, TF-1 cell lysate: sc-2412 or HeLa whole cell lysate: sc-2200.

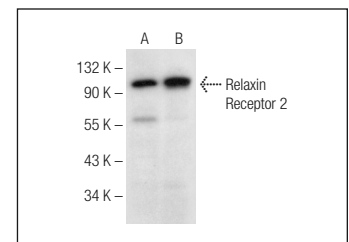
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Relaxin Receptor 2 (H-4): sc-374293. Western blot analysis of Relaxin Receptor 2 expression in HeLa (A), TF-1 (B) and SJRH30 (C) whole cell lysates.



Relaxin Receptor 2 (H-4): sc-374293. Western blot analysis of Relaxin Receptor 2 expression in Jurkat (A) and HeLa (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Shokri, S., et al. 2020. Expression of RXFP2 receptor on human spermatozoa and the anti-apoptotic and antioxidant effects of Insulin-like factor 3. *Andrologia* 52: e13715.

STORAGE

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

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