



# Relaxin Receptor 1 (M-17): sc-22013

## BACKGROUND

Relaxins are endocrine and autocrine/paracrine hormones belonging to the insulin gene superfamily. In several mammalian species, relaxin is best known for its role during pregnancy and parturition, when it is produced by the *corpora lutea* of ovaries and other reproductive tissues. The secretion of relaxin into the blood stream just before parturition results in a marked softening and lengthening of the pubic symphysis and a softening of the cervix, which facilitates the birth process. Also, by inhibiting uterine contractions, relaxin may influence the timing of parturition. Two previously characterized orphan receptors designated relaxin receptor 1 (LGR7) and 2 (LGR8) bind relaxin in several tissues, including reproductive tissues, brain, and heart. Upon ligand binding, the relaxin receptors activate adenylate cyclases through Gs proteins. Expression of the relaxin receptors in tissues other than reproductive ones suggests that they have additional physiological functions, such as regulating blood pressure and controlling vascular volume in the heart.

## REFERENCES

- Hudson, P., Haley, J., Cronk, M., Shine, J., and Niall, H. 1981. Molecular cloning and characterization of cDNA sequences coding for rat relaxin. *Nature* 291: 127-131.
- Hudson, P., Haley, J., John, M., Cronk, M., Crawford, R., Haralambidis, J., Tregear, G., Shine, J., and Niall, H. 1983. Structure of a genomic clone encoding biologically active human relaxin. *Nature* 301: 628-631.
- Osheroff, P.L. and Phillips, H.S. 1991. Autoradiographic localization of relaxin binding sites in rat brain. *Proc. Natl. Acad. Sci. USA* 88: 6413-6417.
- Osheroff, P.L., Cronin, M.J., and Lofgren, J.A. 1992. Relaxin binding in the rat heart atrium. *Proc. Natl. Acad. Sci. USA* 89: 2384-2388.
- Min, G. and Sherwood, O.D. 1996. Identification of specific relaxin-binding cells in the cervix, mammary glands, nipples, small intestine, and skin of pregnant pigs. *Biol. Reprod.* 55: 1243-1252.
- Hsu, S.Y., Nakabayashi, K., Nishi, S., Kumagai, J., Kudo, M., Sherwood, O.D., and Hsueh, A.J. 2002. Activation of orphan receptors by the hormone relaxin. *Science* 295: 671-674.
- LocusLink Report (LocusID: 179730). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## SOURCE

Relaxin Receptor 1 (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Relaxin Receptor 1 of mouse 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-22013 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Relaxin Receptor 1 (M-17) is recommended for detection of Relaxin Receptor 1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.