



Relaxin 1 (6F1willi): sc-57426

BACKGROUND

Relaxin 1 (also referred to as Relaxin or RLXH1) is a peptide hormone produced by the corpora lutea of the ovary during pregnancy in many mammalian species, including human. The secretion of the hormone 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. By inhibiting uterine contractions, Relaxin 1 may influence the timing of parturition. Like Insulin, Relaxin 1 consists of two peptide chains, A and B, covalently linked by disulfide bonds. By further analogy to Insulin, the two peptides are synthesized as a single-chain precursor polypeptide with the B chain at the amino-terminus. The gene that encodes the human Relaxin 1 protein maps to chromosome 9. Relaxin 2, a related protein, is selectively expressed in the ovary during pregnancy. The gene that encodes the human Relaxin 2 protein also maps to chromosome 9.

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.
- Hudson, P., John, M., Crawford, R., Haralambidis, J., Scanlon, D., Gorman, J., Tregear, G., Shine, J. and Niall, H. 1984. Relaxin gene expression in human ovaries and the predicted structure of a human preprorelaxin by analysis of cDNA clones. *EMBO J.* 3: 2333-2339.
- Crawford, R.J., Hudson, P., Shine, J., Niall, H.D., Eddy, R.L. and Shows, T.B. 1984. Two human Relaxin genes are on chromosome 9. *EMBO J.* 3: 2341-2345.
- Masini, E., Zagli, G., Ndisang, J.F., Solazzo, M., Mannaioni, P.F. and Bani, D. 2002. Protective effect of Relaxin in cardiac anaphylaxis: involvement of the nitric oxide pathway. *Br. J. Pharmacol.* 137: 337-344.
- Conrad, K.P., Debrah, D.O., Novak, J., Danielson, L.A. and Shroff, S.G. 2004. Relaxin modifies systemic arterial resistance and compliance in conscious, nonpregnant rats. *Endocrinology* 145: 3289-3296.
- Samuel, C.S., Unemori, E.N., Mookerjee, I., Bathgate, R.A., Layfield, S.L., Mak, J., Tregear, G.W. and Du, X.J. 2004. Relaxin modulates cardiac fibroblast proliferation, differentiation, and collagen production and reverses cardiac fibrosis *in vivo*. *Endocrinology* 145: 4125-4133.
- Goldsmith, L.T., Weiss, G., Palejwala, S., Plant, T.M., Wojtczuk, A., Lambert, W.C., Ammur, N., Heller, D., Skurnick, J.H., Edwards, D. and Cole, D.M. 2004. Relaxin regulation of endometrial structure and function in the Rhesus monkey. *Proc. Natl. Acad. Sci. USA* 101: 4685-4689.
- LocusLink Report (LocusID: 179730). <http://www.ncbi.nlm.nih.gov/LocusLink/>

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: RLN1 (human) mapping to 9p24.1.

SOURCE

Relaxin 1 (6F1willi) is a mouse monoclonal antibody raised against full length Relaxin 1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Relaxin 1 (6F1willi) is recommended for detection of Relaxin 1 of human origin by flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Relaxin 2.

Suitable for use as control antibody for Relaxin 1 siRNA (h): sc-39720, Relaxin 1 shRNA Plasmid (h): sc-39720-SH and Relaxin 1 shRNA (h) Lentiviral Particles: sc-39720-V.

Molecular Weight of Relaxin 1 precursor: 18 kDa.

Molecular Weight of mature Relaxin 1: 6 kDa.

Positive Controls: LNCaP cell lysate: sc-2231.

RESEARCH USE

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

PROTOCOLS

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