

Human Pro-Relaxin-1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF3257

DESCRIPTION

Species Reactivity	Human		
Specificity	Detects human Relaxin-1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Relaxin-2 and rhRelaxin-3 is observed.		
Source	Polyclonal Goat IgG		
Purification	Antigen Affinity-purified		
Immunogen	<i>E. coli</i> -derived recombinant human Relaxin-1 Lys26-Cys185 Accession # P04808		
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.		

APPLICATIONS

Please Note: Optimal dilutions should b	be determined by each laboratory for each application. General Protoc	ols are available in the Technical Information section on our website.	
	Recommended Concentration	Sample	
Western Blot	1 µg/mL	See Below	
ELISA	This antibody functions as an ELISA Antibody (Catalog # MAB32571).	This antibody functions as an ELISA detection antibody when paired with Rat Anti-Human Relaxin-1 Monoclonal Antibody (Catalog # MAB32571).	

This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human Relaxin-1 DuoSet ELISA Kit (Catalog # DY3257) for convenient development of a sandwich ELISA.

DATA Western Blot ELISA Detection of Human Relaxin-1 by Western Blot. Western blot Human Relaxin-1 ELISA Standard Curve. NCaP Recombinant Human Relaxin-1 protein was serially shows lysates of LNCaP human prostate cancer cell line. PVDF kDa Membrane was probed with 1 µg/mL of Goat Anti-Human Prodiluted 2-fold and captured by Rat Anti-Human Relaxin-1 29 Relaxin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # Monoclonal Antibody (Catalog # MAB32571) coated on AF3257) followed by HRP-conjugated Anti-Goat IgG Secondary a Clear Polystyrene Microplate (Catalog # DY990). Antibody (Catalog # Catalog # HAF109). A specific band was Goat Anti-Human Pro Relaxin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3257) was biotinylated detected for Relaxin-1 at approximately 7 kDa (as indicated). This experiment was conducted under reducing conditions and using and incubated with the protein captured on the plate Immunoblot Buffer Group 8. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) 17 followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994). - Relaxin-1 6-PREPARATION AND STORAGE Reconstitution Reconstitute at 0.2 mg/mL in sterile PBS. Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles. • 12 months from date of receipt, -20 to -70 °C as supplied.

- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Human Relaxin-1, also called H1 Relaxin or RLN1, is one of three human relaxins in the structurally related insulin/relaxin superfamily (1, 2). Relaxin-1 is thought to be the result of duplication of the Relaxin-2 gene in higher primates only. In species below higher primates, Relaxin-1 is the equivalent of human Relaxin-2. Relaxin-1 is found in some but not all tissues expressing Relaxin-2. It is prominent in the prostate, but also present in decidua, placenta, endometrium and at low levels in the myocardium (2, 3). As with other insulin/relaxin superfamily members, human Relaxin-1 is synthesized as a preprohormone (4). Processing of the 21 kDa preprorelaxin-1 includes removal of the signal sequence, formation of two disulfide bonds between A and B chains and removal of the intervening C-chain by a prohormone convertase. The resulting mature protein is an unglycosylated, 6 kDa dimer of disulfide-linked A and B chains. Human Relaxin-1 shares 76% amino acid (aa) identity with human Relaxin-2, and 43%, 50%, and 43% aa identity with mouse, rat, and canine Relaxin-1, respectively. An alternate splice form of unknown significance has a 47 as substitution which does not have typical C-chain cleavage motifs (5). Relaxins confer activity by binding to leucine-rich G-protein coupled receptors LGR7 and LGR8 (2, 6). Prostatic relaxins are anti-apoptotic and contribute to development and maintenance of male fertility. It is not clear whether human Relaxins -1 and -2 have distinct functions. Both use the same receptor and have the same critical amino acids for folding and for receptor interaction. While receptor affinity is similar, activity is lower for Relaxin-1 as compared to Relaxin-2 (7). Progesterone increases expression of only Relaxin-2, while glucocorticoids increase expression of both (8).

References:

- 1. Hayes, E.S. (2004) Reprod. Biol. Endocrinol. 2:36.
- 2. Sherwood, O.D. (2004) Endocr. Rev. 25:205.
- 3. Wilkinson, T.N. et al. (2005) BMC Evol. Biol. 5:14.
- 4. Hudson, P. et al. (1984) EMBO J. 3:2333.
- 5. Gunnersen, J.M. *et al.* (1996) Mol. Cell. Endocrinol. **118**:85.
- 6. Hsu, S.Y. et al. (2002) Science 295:671.
- 7. Schwabe, C. and E.E. Bullesbach (1994) FASEB J. 8:1152.
- 8. Garibay-Tupas, J.L. et al. (2004) Mol. Cell. Endocrinol. 219:115.

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