

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Pro-Relaxin-3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human mature Relaxin-3 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Pro-Relaxin-3 Ala27-Cys142. Cross-reactivity with mature Relaxin-3 was removed. Accession # Q8WXF3
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

<b>Western Blot</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunohistochemistry</b>	Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

Human Relaxin-3 (H3 relaxin, INSL7) is one of seven relaxin-like peptides belonging to the insulin superfamily (1-4). Unlike human relaxins 1 and 2, it does not play a role in reproduction but appears to be a neuropeptide involved in stress response in the brain stem (3-5). The 142 amino acid (aa) Relaxin-3 pre-proprotein is processed to remove a 25 aa signal peptide and a connecting peptide (aa 53-118). The resulting mature Relaxin-3 is a 5.5 kDa, 51 aa secreted heterodimer of A (aa 119-142) and B (aa 26-52) peptides connected by two intermolecular disulfide bonds (1). Relaxin-3 is the only known ligand for the G-protein-coupled receptor GPCR135, designated RXFP3 (4, 6). In rodents, GPCR135 is expressed primarily in the supraoptic and paraventricular nucleus (6). This region has connections to the dorsal tegmental region of the pons (also called the nucleus incertus), where expression of Relaxin-3 is highest (5). Relaxin-3 also binds the more widely-expressed LGR7 (RXFP1) receptor, but with lower affinity than that of Relaxin-2 (1, 7). Although binding of Relaxin-3 to LGR7 increases intracellular cAMP, binding to GPCR135 inhibits cAMP accumulation, indicating coupling to G<sub>i</sub>, G<sub>o</sub> or G<sub>z</sub> by this receptor (1, 5). Relaxin-3 expression does not overlap well with its other receptor, GPCR142, which instead appears to be the primary receptor for INSL5 (3, 8).

## PRODUCT SPECIFIC NOTICES

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