

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Relaxin-1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Relaxin-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Relaxin-1 Arg23-Arg54 with an N-terminal Met (B chain) & Glu161-Cys185 (A chain) Accession # NP_035402
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

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

BACKGROUND

Mouse Relaxin-1 (RLN1 or M1 relaxin) is the counterpart of human relaxin-2 (H2 relaxin) within the structurally related insulin/relaxin superfamily, while orthologs of the human relaxin-1 are found only in higher primates (1, 2). As with other insulin/relaxin superfamily members, RLN1 is synthesized as a prehormone (1-3, 5). Processing of the 21 kDa preprorelaxin-1 and 16-17 kDa prorelaxin-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 that binds the leucine-rich G-protein coupled receptor RXFP1, previously called LGR7 (1-4). Mouse RLN1 shares only 67%, 39%, 36% and 42% amino acid (aa) identity with rat, equine and feline RLN1 and human Relaxin-2, respectively, and its activity shows partial species specificity. For example, a unique amino acid near the end of the A chain in mice, Tyr184, lowers its affinity for RXFP1 compared to other species (5). Mouse RLN1 is prominently expressed in the prostate and ovary, with lower levels in the brain, heart and other organs (1-3). In the prostate, RLN1 is anti-apoptotic and contributes to development and maintenance of male fertility (6). In the female mouse, circulating RLN1 produced by the corpus luteum during pregnancy is essential for growth and softening of the cervix and vagina in preparation for delivery. It also promotes development of the mouse mammary apparatus, regulates plasma osmolality, and increases cardiac output and glomerular filtration rate in pregnancy (1, 2). Many RLN1 effects on reproductive tissues are augmented by estrogen (1-3, 7). In non-reproductive tissues, RLN1 mediates collagen turnover (7). RLN1-deficient mice develop age-related fibrosis and smooth muscle hypertrophy in organs such as lung, heart, kidney and liver (7-10).

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