

Human Relaxin-1 / RLN1 Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 11625-H08H

General Information

Gene Name Synonym:

bA12D24.3.1; bA12D24.3.2; H1; H1RLX; RLN1; RLXH1

Protein Construction:

A DNA sequence encoding the human RLN1 (NP_008842.1) (Met 1-Cys 185) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 82 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Val 23

Molecular Mass:

The secreted pro form of recombinant human RLN1 consists of 174 amino acids and predicts a molecular mass of 20 kDa as estimated in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

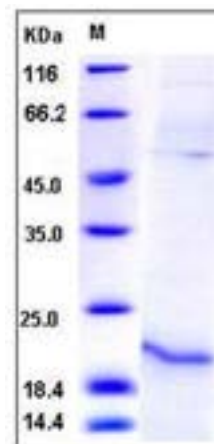
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Relaxin-1, also known as Prorelaxin H1 and RLN1, is a secreted protein which belongs to the insulin family. It is a peptide hormone that was first described in 1926 by Frederick Hisaw. Since its discovery as a reproductive hormone 80 years ago, relaxin has been implicated in a number of pregnancy-related functions involving extracellular matrix (ECM) turnover and collagen degradation. It is now becoming evident that relaxin's ability to reduce matrix synthesis and increase ECM degradation has important implications in several nonreproductive organs, including the heart, lung, kidney, liver and skin. The relaxin-like peptide family belongs in the insulin superfamily and consists of 7 peptides of high structural but low sequence similarity; relaxin-1 (RNL1), relaxin-2 (RNL2) and relaxin-3 (RNL3), and the insulin-like (INSL) peptides, INSL3, INSL4, INSL5 and INSL6. The functions of relaxin-3, INSL4, INSL5, INSL6 remain uncharacterized. Relaxin-1 / RLN1 is an ovarian hormone that acts with estrogen to produce dilatation of the birth canal in many mammals. Relaxin-1 / RLN1 may be involved in remodeling of connective tissues during pregnancy, promoting growth of pubic ligaments and ripening of the cervix. Relaxin and estrogen appear to play protective roles against airway fibrosis, airway SM thickening, and cardiac hypertrophy. Relaxin may also provide a means to regulate excessive collagen deposition during kidney development and in diseased states characterized by renal fibrosis.

References

1. Bathgate, R.A. et al., 2003, *Endocrinol Metab* 14 (5):207-13.
2. Samuel, C.S. et al., 2003, *Curr Opin Pharmacol* 3 (2):152-8.
3. Samuel, C.S. et al., 2004, *Kidney Int* 65 (6):2054-64.

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