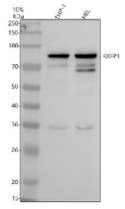
RXFP1 Antibody / Relaxin receptor 1 (FY13440)

Catalog No.	Formulation	Size
FY13440	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
UniProt	Q9HBX9
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This RXFP1 antibody is available for research use only.



Western blot analysis of Relaxin receptor 1 using RXFP1 antibody. Lane 1: human THP-1 whole cell lysates; Lane 2: human HEL whole cell lysates. A prominent band is detected at approximately 85 kDa, consistent with the predicted molecular weight of Relaxin receptor 1. Additional lower-molecular-weight bands are observed at approximately 65-70 kDa and ~35 kDa, which may reflect partially glycosylated receptor forms or proteolytic fragments commonly reported for GPCR family members such as RXFP1. The overall banding pattern is consistent with detection of RXFP1 in human cell lysates.

Description

RXFP1 antibody targets Relaxin receptor 1, encoded by the RXFP1 gene. Relaxin receptor 1 is a G protein-coupled receptor that serves as the primary receptor for the peptide hormone relaxin. RXFP1 is localized at the cell membrane and initiates intracellular signaling cascades in response to ligand binding, playing key roles in tissue remodeling, vasodilation, and reproductive physiology. Unlike classical GPCRs, RXFP1 has unique structural features that enable coupling to multiple signaling pathways.

Functionally, Relaxin receptor 1 mediates the biological effects of relaxin by activating signaling pathways that include cyclic AMP production, nitric oxide signaling, and downstream kinase activation. Through these pathways, RXFP1 regulates extracellular matrix turnover, collagen remodeling, and smooth muscle relaxation. A RXFP1 antibody supports studies focused on hormone receptor signaling, tissue remodeling, and GPCR-mediated cellular responses.

RXFP1 is expressed in a range of tissues, including reproductive organs, cardiovascular tissues, and fibroblast-rich environments. Its expression pattern reflects its involvement in processes such as pregnancy-associated tissue adaptation, vascular compliance, and organ fibrosis regulation. RXFP1 localization at the plasma membrane enables rapid responsiveness to circulating relaxin and related ligands.

From a disease-relevance perspective, Relaxin receptor 1 has been investigated in cardiovascular disease, fibrosis, and reproductive disorders. Altered RXFP1 expression or signaling has been associated with pathological fibrosis, impaired vascular function, and abnormal tissue remodeling. These findings have positioned RXFP1 as a protein of interest in studies examining therapeutic modulation of relaxin signaling pathways.

At the molecular level, Relaxin receptor 1 contains conserved transmembrane domains characteristic of GPCRs, along with extracellular regions involved in ligand recognition. Receptor trafficking, ligand binding state, and post-translational modifications can influence its apparent behavior in biochemical assays without altering the primary amino acid sequence. RXFP1 antibody reagents support research applications focused on GPCR biology, hormone signaling, and disease-associated tissue remodeling, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the RXFP1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human Relaxin receptor 1 recombinant protein (amino acids D73-S757) was used as the immunogen for the RXFP1 antibody.

Storage

After reconstitution, the RXFP1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.