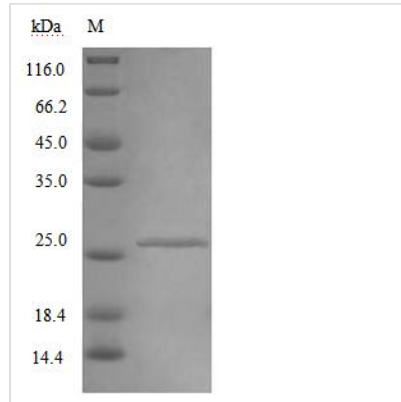




# Recombinant Mouse Interferon alpha/beta receptor 2 (Ifnar2), partial

<b>Product Code</b>	CSB-YP011047MO
<b>Relevance</b>	Associates with IFNAR1 to form the type I interferon receptor. Receptor for interferons alpha and beta. Involved in IFN-mediated STAT1, STAT2 and STAT3 activation. Isoform 1 and isoform 2 are directly involved in signal transduction due to their association with the TYR kinase, JAK1. Isoform 2 and 3 may be potent inhibitors of type I IFN receptor activity .
<b>Abbreviation</b>	Recombinant Mouse Ifnar2 protein, partial
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	O35664
<b>Alias</b>	Type I interferon receptor 2
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Mus musculus (Mouse)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	SLETITPSAFDGYDPDEPCTINITIRNSRLILSWELNKSGPPANYTLWYTVMSKD ENLTKVKNCSDTTKSSCDVTDKWLEGMESYVVAIVIVHRGDLTVCRCSYIVP ANAPLEPPEFEIVGFTDHINVTMEFPPVTSKIIQEKMKTTFPVIKEQIGDSVRKKH EPKVNNVTGNFTFVLRDLLPKTNYCVSLYFDDDDPAIKSPLKCIVLQPGQESGLS ESA
<b>Source</b>	Yeast
<b>Target Names</b>	Ifnar2
<b>Protein Names</b>	Type I interferon receptor 2
<b>Expression Region</b>	22-242aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-tagged
<b>Mol. Weight</b>	26.8 kDa
<b>Protein Length</b>	Extracellular Domain
<b>Image</b>	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

Recombinant Mouse Interferon alpha/beta receptor 2 (Ifnar2) is produced in a yeast expression system and spans the extracellular domain from amino acids 22 to 242. The protein carries an N-terminal 6xHis-tag and shows purity levels exceeding 90%, as confirmed by SDS-PAGE analysis. This protein is intended strictly for research purposes and contains no detectable endotoxin, which appears to make it suitable for various experimental applications.

Interferon alpha/beta receptor 2 (Ifnar2) represents a critical component of the interferon signaling pathway. It likely plays a central role in mediating cellular responses to type I interferons. The protein participates in several cellular processes, including antiviral defense and immune response modulation. Its research significance stems from its involvement in immune regulation studies and host-pathogen interaction research.

## Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

### 1. Interferon Receptor Binding Studies

This recombinant mouse Ifnar2 extracellular domain may prove useful for investigating binding interactions between type I interferons and their receptor subunits in vitro. The purified protein allows for direct binding assays that can characterize the affinity and specificity of various interferon subtypes for the Ifnar2 component. Studies like these could help us understand the molecular basis of interferon receptor assembly and how signaling gets initiated. The N-terminal His-tag makes immobilization on nickel-coated surfaces straightforward for surface plasmon resonance or other binding analysis platforms.

### 2. Antibody Development and Characterization

The recombinant Ifnar2 extracellular domain works as an antigen for generating research antibodies specific to the mouse interferon alpha/beta receptor 2. Researchers can use this protein to immunize animals for polyclonal antibody



production or as a screening antigen when developing monoclonal antibodies. It also provides a standardized antigen for characterizing the specificity and cross-reactivity of existing anti-Ifnar2 antibodies through ELISA, Western blot, or other immunoassays. The high purity level suggests it should deliver reliable and reproducible results in antibody validation studies.

### 3. Protein-Protein Interaction Analysis

This purified Ifnar2 extracellular domain can be used in pull-down assays to identify and study proteins that interact with the interferon receptor in research contexts. The His-tag allows for efficient immobilization on nickel-affinity matrices, which helps capture potential binding partners from cell lysates or purified protein preparations. Experiments like these might reveal novel regulatory proteins or co-receptors involved in interferon signaling pathways. The yeast expression system appears to provide properly folded protein that maintains native protein-protein interactions.

### 4. Structural and Biophysical Characterization

The recombinant protein offers material for structural biology studies aimed at understanding how the Ifnar2 extracellular domain is organized in three dimensions. Researchers could apply techniques such as X-ray crystallography, NMR spectroscopy, or cryo-electron microscopy to determine structural features important for receptor function. Biophysical analyses including dynamic light scattering, analytical ultracentrifugation, or thermal stability assays may provide insights into protein folding, oligomerization states, and stability properties. The high purity and defined composition seem well-suited for these analytical approaches.

### 5. Competitive Inhibition Assays

The soluble Ifnar2 extracellular domain can function as a competitive inhibitor in cell-based assays studying interferon signaling pathways. By competing with cell surface receptors for interferon binding, this recombinant protein lets researchers modulate interferon responses in controlled experimental settings. Applications like these are valuable for dissecting the specific contributions of Ifnar2 to overall receptor complex formation and downstream signaling events. The defined concentration and purity should allow for precise dose-response studies in various cell culture models.

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#### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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#### Shelf Life

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