# Recombinant Human G1P2 / ISG15 ( mature form )

**Catalog Number: 12729-HNAE1**

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Biological Solution Specialist

## General Information

**Gene Name Synonym:**

G1P2, IFI15, IP17, UCRP, hUCRP

**Protein Construction:**

A DNA sequence encoding the mature form of human ISG15 (AAH09507.1) (Met 1-Gly 157) was expressed and purified.

**Source:** Human

**Expression Host:** *E.Coli*

## QC Testing

**Purity:** > 95% as determined by SDS-PAGE.

**Endotoxin:**

Please contact us for more information.

**Stability:**

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

**Predicted N terminal:** Met 1

**Molecular Mass:**

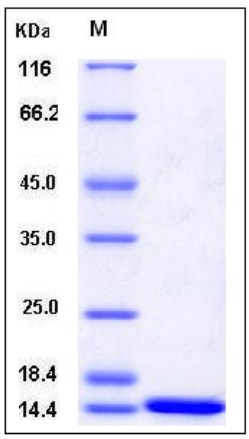
The recombinant human ISG15 (mature form) consists of 157 amino acids and has a calculated molecular mass of 17.2 KDa. It migrates as an approximately 15 KDa band in SDS-PAGE under reducing conditions.

**Formulation:**

Lyophilized from 0.2μm filtered solution of 50mMTris, pH8.0

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

**SDS-PAGE:**




## Usage Guide

**Storage:**

Store it under sterile conditions at -70℃ 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.

## Protein Description

Ubiquitin-like protein ISG15, also known as Interferon-induced 15 kDa protein, Interferon-induced 17 kDa protein, Ubiquitin cross-reactive protein, ISG15 and G1P2, is a cytoplasm and secreted protein which is detected in lymphoid cells, striated and smooth muscle, several epithelia and neurons. ISG15 / G1P2 contains 2 ubiquitin-like domains. ISG15 / G1P2 is a ubiquitin-like protein that is conjugated to intracellular target proteins after IFN-alpha or IFN-beta stimulation. ISG15 / G1P2 enzymatic pathway is partially distinct from that of ubiquitin, differing in substrate specificity and interaction with ligating enzymes. ISG15 / G1P2 conjugation pathway uses a dedicated E1 enzyme, but seems to converge with the Ub conjugation pathway at the level of a specific E2 enzyme. ISG15 / G1P2 Targets include STAT1, SERPINA3G/SPI2A, JAK1, MAPK3/ERK1, PLCG1, EIF2AK2/PKR, MX1/MxA, and RIG-1. ISG15 / G1P2 is deconjugated by USP18/UBP43. It shows specific chemotactic activity towards neutrophils and activates them to induce release of eosinophil chemotactic factors. ISG15 / G1P2 may serve as a trans-acting binding factor directing the association of ligated target proteins to intermediate filaments. ISG15 / G1P2 may also be involved in autocrine, paracrine and endocrine mechanisms, as in cell-to-cell signaling, possibly partly by inducing IFN-gamma secretion by monocytes and macrophages. ISG15 / G1P2 seems to display antiviral activity during viral infections.

**References**

1. Loeb K.R., et al., 1992, J. Biol. Chem. 267:7806-7813.
2. Loeb K.R., et al., 1994, Mol. Cell. Biol. 14:8408-8419.
3. Narasimhan J., et al., 1996,J. Biol. Chem. 271:324-330.
4. Narasimhan J., et al., 2005,J. Biol. Chem. 280:27356-27365.
5. Burkard T.R., et al., 2011, BMC Syst. Biol. 5:17-17.