



# Recombinant Protein Technical Manual

## Recombinant Human ISG15/G1P2 Protein (His Tag)

RPES1887

### Product Data:

**Product SKU:** RPES1887

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P05161

### Protein Information:

**Molecular Mass:** 18.2 kDa

**AP Molecular Mass:** 16 kDa

**Tag:** C-His

**Bio-activity:**

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

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 50mM HEPES, 100mM NaCl, pH 8.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Ubiquitin-Like Protein ISG15; Interferon-Induced 15 kDa Protein; Interferon-Induced 17 kDa Protein; IP17; Ubiquitin Cross-Reactive Protein; hUCRP; ISG15; G1P2; UCRP

## Immunogen Information:

**Sequence:** Gly2-Gly157(Ser83Asn)

## Background:

Ubiquitin-Like Protein ISG15 (ISG15) is a ubiquitin-like protein that becomes conjugated to many cellular proteins upon activation by interferon-alpha and -beta. Several functions have been ascribed to the encoded protein, including chemotactic activity towards neutrophils, direction of ligated target proteins to intermediate filaments, cell-to-cell signaling, and antiviral activity during viral infections. While conjugates of this protein have been found to be noncovalently attached to intermediate filaments, this protein is sometimes secreted. ISG15 becomes conjugated to a diverse set of proteins after IFN-alpha/beta stimulation or microbial challenge. The functions or biochemical consequences ISG15 conjugation to proteins are not yet known, but it appears that this modification does not target proteins for proteasomal degradation. ISG15 shows specific chemotactic activity towards neutrophils and activates them to induce release of eosinophil chemotactic factors. Upon interferon treatment, ISG15 can be detected in both free and conjugated forms, and is secreted from monocytes and lymphocytes where it can function as a cytokine. In the cell, ISG15 co-localizes with intermediate filaments and ISGylation may modulate the JAK-STAT pathway or certain aspects of neurological disease.