

## Recombinant human Ubiquitin-like protein ISG15

Catalog No: #AP72086



Package Size: #AP72086-1 20ug #AP72086-2 100ug #AP72086-3 1mg

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## Description

Product Name	Recombinant human Ubiquitin-like protein ISG15
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:2-157aaSequence Info:Full Length
Other Names	Interferon-induced 15KDA proteinInterferon-induced 17KDA protein ;IP17Ubiquitin cross-reactive protein
Accession No.	P05161
Uniprot	P05161
GeneID	9636;
Calculated MW	44.3 kDa
Tag Info	N-terminal GST-tagged
Target Sequence	GWDLTVKMLAGNEFQVSLSSSMSVSELKAQITQKIGVHAFQQRRLAVHPSGVALQDRVPLASQGLGPGSTVLL VVDKCDEPLSILVRNNKGRSSTYEVRLTQTVAHLKQQVSGLEGVQDDLFWLTFEGKPLEDQLPLGEYGLKPLS TVFMNLRRLRGG
Formulation	Tris-based buffer50% glycerol
Storage	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.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

Ubiquitin-like protein which plays a key role in the innate immune response to viral infection either via its conjugation to a target protein (ISGylation) or via its action as a free or unconjugated protein. ISGylation involves a cascade of enzymatic reactions involving E1, E2, and E3 enzymes which catalyze the conjugation of ISG15 to a lysine residue in the target protein. Its target proteins include SERPINA3G,SPI2A, JAK1, MAPK3,ERK1, PLCG1, TRIM25, STAT5A, MAPK1,ERK2 and globin. Can also isgylate: DDX58,RIG-I which inhibits its function in antiviral signaling response and EIF4E2 which enhances its cap structure-binding activity and translation-inhibition activity. Exhibits antiviral activity towards both DNA and RNA viruses, including influenza A and B virus, sindbis virus (SV) and herpes simplex type-1 (HHV-1). Plays a significant role in the control of neonatal Chikungunya virus (CHIKV) infection by acting as a putative immunomodulator of proinflammatory cytokines. Protects mice against the consequences of Chikungunya virus infection by downregulating the pathogenic cytokine response, often denoted as the cytokine storm. Plays a role in erythroid differentiation. The secreted form of ISG15 can: induce natural killer cell proliferation, act as a chotactic factor for neutrophils and act as a IFN-gamma-inducing cytokine playing an essential role in antimycobacterial immunity

## References

Identification of a ubiquitin family protein as a novel neutrophil chemotactic factor.Owhashi M., Taoka Y., Ishii K., Nakazawa S., Uemura H., Kambara H.Biochem. Biophys. Res. Commun. 309:533-539(2003)Research Topic:Immunology

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Note: This product is for in vitro research use only