

# Summary

Production Name	ISG15 (3K13) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human

#### Performance

Conjugation	Unconjugated
Modification	Unmodified
lsotype	lgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
Purification	Affinity purification

### Immunogen

Gene Name	ISG15
Alternative Names	IP17; Ubiquitin cross-reactive protein; hUCRP; ISG15; G1P2;
Gene ID	9636.0
SwissProt ID	P05161.A synthetic peptide of human ISG15

### Application

Dilution Ratio	WB: 1:1000-1:5000
Molecular Weight	18kDa

## Background

### Product Name: ISG15 (3K13) Rabbit Monoclonal Antibody Catalog #: AMRe12767



May serve as a trans-acting binding factor directing the association of ligated target proteins to intermediate filaments. 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. Seems to display antiviral activity during viral infections. Ubiguitin-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 (PubMed: <a href="http://www.uniprot.org/citations/33727702" target=" blank">33727702</a>). Its target proteins include IFIT1, MX1/MxA, PPM1B, UBE2L6, UBA7, CHMP5, CHMP2A, CHMP4B and CHMP6. Isgylation of the viral sensor IFIH1/MDA5 promotes IFIH1/MDA5 oligomerization and triggers activation of innate immunity against a range of viruses, including coronaviruses, flaviviruses and picornaviruses (PubMed: <a href="http://www.uniprot.org/citations/33727702" target=" blank">33727702</a>). Can also isgylate: EIF2AK2/PKR which results in its activation, DDX58/RIG-I which inhibits its function in antiviral signaling response, EIF4E2 which enhances its cap structure- binding activity and translationinhibition activity, UBE2N and UBE2E1 which negatively regulates their activity, IRF3 which inhibits its ubiquitination and degradation and FLNB which prevents its ability to interact with the upstream activators of the JNK cascade thereby inhibiting IFNA-induced JNK signaling. Exhibits antiviral activity towards both DNA and RNA viruses, including influenza A, HIV-1 and Ebola virus. Restricts HIV-1 and ebola virus via disruption of viral budding. Inhibits the ubiquitination of HIV-1 Gag and host TSG101 and disrupts their interaction, thereby preventing assembly and release of virions from infected cells. Inhibits Ebola virus budding mediated by the VP40 protein by disrupting ubiguitin ligase activity of NEDD4 and its ability to ubiquitinate VP40. ISGylates influenza A virus NS1 protein which causes a loss of function of the protein and the inhibition of virus replication. The secreted form of ISG15 can: induce natural killer cell proliferation, act as a chemotactic factor for neutrophils and act as a IFN-gamma-inducing cytokine playing an essential role in antimycobacterial immunity. The secreted form acts through the integrin ITGAL/ITGB2 receptor to initiate activation of SRC family tyrosine kinases including LYN, HCK and FGR which leads to secretion of IFNG and IL10; the interaction is mediated by ITGAL (PubMed:<a href="http://www.uniprot.org/citations/29100055" target=" blank">29100055</a>).

### **Research Area**

### Image Data





Western blot detection of ISG15 in C6,3T3,Hela cell lysates using ISG15 antibody(1:1000 diluted).

#### Note

For research use only.