

Anti-ISG15 Picoband Antibody

Catalog # ABO12636

Product Information

Application	WB, IHC-P
Primary Accession	Q64339
Host	Rabbit
Reactivity	Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Ubiquitin-like protein ISG15(ISG15) detection. Tested with WB, IHC-P in Mouse.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	100038882
Other Names	Ubiquitin-like protein ISG15, Interferon-induced 15 kDa protein, Interferon-induced 17 kDa protein, IP17, Ubiquitin cross-reactive protein, Isg15, G1p2, Ucrp
Calculated MW	17898
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, By Heat Western blot, 0.1-0.5 µg/ml, Mouse
Subcellular Localization	Cytoplasm. Secreted . Exists in three distinct states: free within the cell, released into the extracellular space, or conjugated to target proteins. .
Source	Eukaryota
Protein Name	Ubiquitin-like protein ISG15
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived mouse ISG15 recombinant protein (Position: A2-G155). Mouse ISG15 shares 65.8% amino acid (aa) sequence identity with human ISG15.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	Isg15
Synonyms	G1p2, Ucrp
Function	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. 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. Can also isgylate: RIGI which inhibits its function in antiviral signaling response, IRF3 which inhibits its ubiquitination and degradation as well as 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 pro-inflammatory cytokines. Protects mice against the consequences of Chikungunya virus infection by down-regulating 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 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 (By similarity).
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:P05161}. Secreted {ECO:0000250 UniProtKB:P05161}. Note=Exists in three distinct states: free within the cell, released into the extracellular space, or conjugated to target proteins. {ECO:0000250 UniProtKB:P05161}

Background

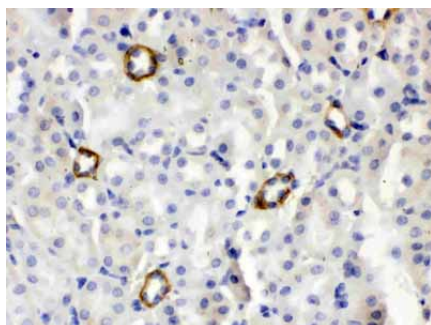
Interferon-stimulated gene 15 (ISG15) is a 17 kDA secreted protein that in humans is encoded by the ISG15 gene. The protein encoded by this gene is a ubiquitin-like protein that is conjugated to intracellular target proteins upon activation by interferon-alpha and interferon-beta. Several functions have 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.

Images

Western blot analysis of ISG15 expression in mouse intestine extract (lane 1) and mouse spleen extract (lane 2). ISG15 at 15KD was detected using rabbit anti-ISG15



Antigen Affinity purified polyclonal antibody (Catalog # ABO12636) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .



ISG15 was detected in paraffin-embedded sections of mouse kidney tissues using rabbit anti- ISG15 Antigen Affinity purified polyclonal antibody (Catalog # ABO12636) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.