

Anti-ISG15 Antibody (N-term))

Catalog Number: M00554-1

About ISG15

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 IFIT1, MX1/MxA, PPM1B, UBE2L6, UBA7, CHMP5, CHMP2A, CHMP4B and CHMP6. 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 translation- inhibition 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 ubiquitin 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.

Overview

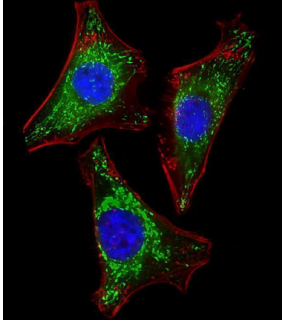
Product Name	Anti-ISG15 Antibody (N-term))
Reactive Species	Human
Description	Boster Bio Anti-ISG15 Antibody (N-term)) (Catalog # M00554-1). Tested in WB, IF application(s). This antibody reacts with Human.
Application	IF, WB
Clonality	Monoclonal 1031CT2.8.3
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Mouse
Uniprot ID	P05161

Technical Details

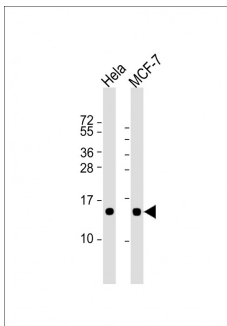
Immunogen	This ISG15 antibody is generated from a mouse immunized with a recombinant protein from human ISG15.
Predicted Reactive Species	Mouse

Isotype	IgG1,k
Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	IF: 1:25 WB: 1:8000

Anti-ISG15 Antibody (N-term)) (M00554-1) Images



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling ISG15 with M00554-1 at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).



All lanes : Anti-ISG15 Antibody (N-term)) at 1:8000 dilution
Lane 1: HeLa whole cell lysate
Lane 2: MCF-7 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 18 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.

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For Research Use Only. Not for use in diagnostic procedures.