

Datasheet for ABIN103335
anti-ISG15 antibody



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Overview

Quantity:	500 µg
Target:	ISG15
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ISG15 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Purpose:	ISG15 Antibody
Immunogen:	Immunogen: This purified antibody was prepared from rabbit serum after repeated immunizations with recombinant human ISG15 protein. Immunogen Type: Recombinant Protein
Isotype:	IgG
Cross-Reactivity (Details):	Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum.
Characteristics:	Synonyms: rabbit anti-ISG15 Antibody, G1P2 antibody, IFI 15 antibody, IFI15 antibody, Interferon alpha inducible protein antibody, Interferon induced 15 kDa protein antibody
Purification:	This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above.

Target Details

Target: ISG15

Alternative Name: ISG15 ([ISG15 Products](#))

Background: Ubiquitin-like proteins fall into two classes: the first class, ubiquitin-like modifiers (UBLs) function as modifiers in a manner analogous to that of ubiquitin. Examples of UBLs are SUMO, Rub1 (also called Nedd8), Apg8 and Apg12. Proteins of the second class include parkin, RAD23 and DSK2, are designated ubiquitin-domain proteins (UDPs). These proteins contain domains that are related to ubiquitin but are otherwise unrelated to each other. In contrast to UBLs, UDPs are not conjugated to other proteins. ISG15 (Interferon Stimulating Gene-15) shows no amino acid sequence homology to cytokines and is synthesized as a precursor that is activated through processing by a thiol protease. ISG15 is secreted by monocytes and lymphocytes. Synthesis is induced in response to IFN- α or IFN- β or IFN- γ , but not IFN- δ . ISG15 expression is induced also by overexpression of some interferon regulatory factors that have been shown to play a role in the transcriptional regulation of IFN genes. ISG15 is secreted also by cell lines of monocyte (U937 cell line), T-lymphocyte, B-lymphocyte (DAUDI cells), human fibroblasts, and epithelial origins. The induction of terminal differentiation in human melanoma cells is associated, among other things, with alterations in the expression of ISG15.

Intracellularly ISG15 has been shown to function as a ubiquitin homologue. It is known also as UCRP (ubiquitin cross-reactive protein). Serpin 2a (spi2a), a member of the serine protease inhibitor (serpin) protein family that is highly induced in macrophages during bacillus Calmette-Guerin infection has been shown to bind ISG15. ISG15 has been shown to modulate immune cell function. It possesses activities of cytokines and induces production of IFN- γ . It enhances proliferation and functions of natural killer and LAK cells.

Gene ID: 9636, 4826774

UniProt: [P05161](#)

Application Details

Application Notes: Immunohistochemistry Dilution: User Optimized

Application Note: This purified polyclonal antibody reacts with human ISG15 by western blot and ELISA. Although not tested, this antibody is likely functional in immunohistochemistry and immunoprecipitation. This antibody using the specified conditions may recognize other prominent intrinsic bands (UBLs or conjugates), especially at lower dilutions. An 18.5 kDa band corresponding to human ISG15 is detected. IFN α or IFN β stimulated HeLa cell lysates can be used as a positive control.

Western Blot Dilution: 1:200 - 1:1,000

Application Details

ELISA Dilution: 1:2,000 - 1:10,000

Other: User Optimized

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Reconstitution Volume: 100 μ L

Reconstitution Buffer: Restore with deionized water (or equivalent)

Concentration: 5.0 mg/mL

Buffer: Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01 % (w/v) Sodium Azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Storage Comment: Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: 12 months

Publications

Product cited in: Gall, Pryke, Abraham, Mizuno, Botto, Sali, Broeckel, Haese, Nilsen, Placzek, Morrison, Heise, Streblow, DeFilippis: "Emerging Alphaviruses Are Sensitive to Cellular States Induced by a Novel Small-Molecule Agonist of the STING Pathway." in: **Journal of virology**, Vol. 92, Issue 6, (2018) ([PubMed](#)).

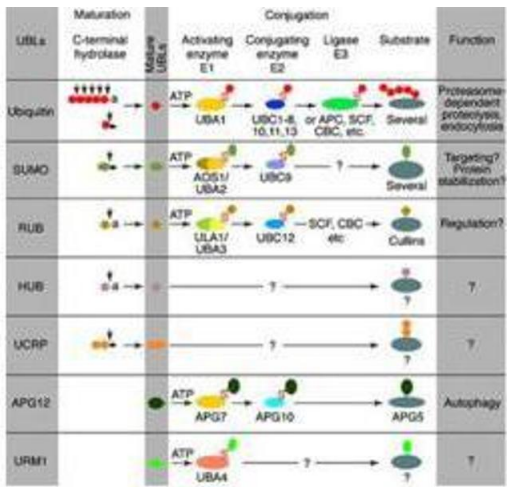
Ezzati, Komher, Severini, Coombs: "Comparative proteomic analyses demonstrate enhanced interferon and STAT-1 activation in reovirus T3D-infected HeLa cells." in: **Frontiers in cellular and infection microbiology**, Vol. 5, pp. 30, (2015) ([PubMed](#)).

Fields, Dumaop, Adame, Ellis, Letendre, Grant, Masliah: "Alterations in the levels of vesicular trafficking proteins involved in HIV replication in the brains and CSF of patients with HIV-associated neurocognitive disorders." in: **Journal of neuroimmune pharmacology : the official journal of the Society on NeuroImmune Pharmacology**, Vol. 8, Issue 5, pp. 1197-209, (2014) ([PubMed](#)).

Coombs: "HeLa cell response proteome alterations induced by mammalian reovirus T3D infection." in: **Virology journal**, Vol. 10, pp. 202, (2013) ([PubMed](#)).

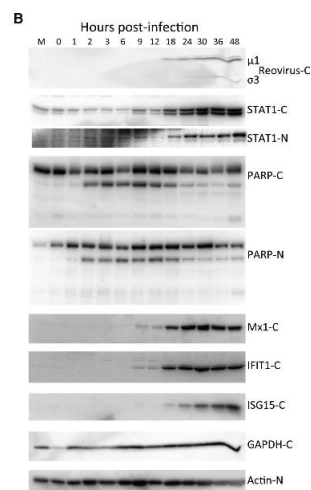
Berard, Cortens, Krokhin, Wilkins, Severini, Coombs: "Quantification of the host response proteome after mammalian reovirus T1L infection." in: **PLoS ONE**, Vol. 7, Issue 12, pp. e51939, (2013) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



Western Blotting

Image 1. Immunoblot of hISG15 fusion protein. Anti-hISG15 antibody, generated by immunization with recombinant human ISG15, was tested by immunoblot against a hISG15-GFP fusion protein produced in E.coli cell lysate soluble fraction. Dilution of the antibody between 1:200 and 1:1,000 showed strong reactivity specifically with hISG15 and ISG15 coupled proteins. Free hISG15 is indicated by the arrowhead. In this blot the antibody was used at a 1:200 dilution incubated overnight at 4



Western Blotting

Image 2. Western blot validation of host protein regulation. A, HeLa cells were mock-infected or infected for 24 h, or B, for indicated periods of time, harvested and lysed with 0.5 % NP-40 detergent. The cytosolic and nuclear fractions were separately purified, dissolved in SDS electrophoresis sample buffer, and proteins resolved in 10 % (A), or in 4-16 % gradient (B) SDS-PAGE, transferred to PVDF, and probed with indicated antibodies. Antibody binding was detected with HRP-conjugated secondary antibodies and ECL, and visualized with an Alpha Innotech FluorChemQ MultiImage III instrument. Molecular weight standards are indicated at left and SILAC-measured ratios are indicated on right in A. *: not detected in indicated fraction, : based on single peptide only. - figure provided by CiteAb.Source: PMID23799967