

ISG15 (B-25): sc-130791

BACKGROUND

Interferon-induced 15 kDa protein (ISG15) acts as ubiquitin by conjugating to intracellular target proteins such as JAK1 or MAPK3/ERK1 through an enzyme pathway distinct from that of ubiquitin. ISG15 shows specific chemotactic activity towards neutrophils and activates them to induce the release of eosinophil chemotactic factors. ISG15 is also involved in paracrine, autocrine and endocrine mechanisms by inducing IFN- γ secretion by monocytes and macrophages, as in cell-to-cell signaling. ISG15 is a cytoplasmic protein expressed mainly in muscle, epithelial, neuronal and lymphoid cells.

REFERENCES

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4. Liu, M., et al. 2003. Proteasomes modulate conjugation to the ubiquitin-like protein, ISG15. *J. Biol. Chem.* 278: 1594-1602.
5. Austin, K.J., et al. 2004. Localization of ISG15 and conjugated proteins in bovine endometrium using immunohistochemistry and electron microscopy. *Endocrinology* 145: 967-975.
6. Ritchie, K.J., et al. 2004. Role of ISG15 protease UBP43 (USP18) in innate immunity to viral infection. *Nat. Med.* 10: 1374-1378.
7. Catic, A., et al. 2007. Screen for ISG15-crossreactive deubiquitinases. *PLoS ONE* 2: e679.
8. Rempel, L.A., et al. 2007. Ubp43 gene expression is required for normal ISG15 expression and fetal development. *Reprod. Biol. Endocrinol.* 5: 13.
9. Okumura, F., et al. 2007. ISG15 modification of the eIF4E cognate 4EHP enhances CAP structure-binding activity of 4EHP. *Genes Dev.* 21: 255-260.

CHROMOSOMAL LOCATION

Genetic locus: ISG15 (human) mapping to 1p36.33.

SOURCE

ISG15 (B-25) is a purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ISG15 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ISG15 (B-25) is recommended for detection of ISG15 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ISG15 siRNA (h): sc-43869, ISG15 shRNA Plasmid (h): sc-43869-SH and ISG15 shRNA (h) Lentiviral Particles: sc-43869-V.

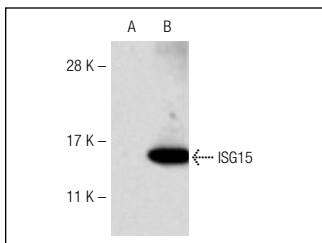
Molecular Weight of ISG15: 15 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



ISG15 (B-25): sc-130791. Western blot analysis of ISG15 expression in non-transfected (A) and human ISG15 transfected (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mangeat, B., et al. 2012. Influenza virus partially counteracts restriction imposed by tetherin/BST-2. *J. Biol. Chem.* 287: 22015-22029.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **ISG15 (F-9): sc-166755** or **ISG15 (A-4): sc-514964**, our highly recommended monoclonal alternatives to ISG15 (B-25). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **ISG15 (F-9): sc-166755**.