SANTA CRUZ BIOTECHNOLOGY, INC.

ISG15 (H-150): sc-50366

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. It is also involved in paracrine, autocrine and endocrine mechanisms, as in cell-to-cell signaling, possibly partly by inducing IFN-γ secretion by monocytes and macrophages. ISG15 is a cytoplasmic protein expressed mainly in muscle, epithelia, neurons and lymphoid cells.

REFERENCES

1. Knight, E., Jr., et al. 1991. IFN-induced 15 kDa protein is released from human lymphocytes and monocytes. J. Immunol. 146: 2280-2284.
2. Loeb, K.R., et al. 1992. The interferon-inducible 15 kDa ubiquitin homolog conjugates to intracellular proteins. J. Biol. Chem. 267: 7806-7813.

CHROMOSOMAL LOCATION

Genetic locus: ISG15 (human) mapping to 1p36.33; Isg15 (mouse) mapping to 4 E2.

SOURCE

ISG15 (H-150) is a rabbit polyclonal antibody raised against amino acids 1-150 mapping at the N-terminus of ISG15 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

ISG15 (H-150) is recommended for detection of ISG15 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) 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.

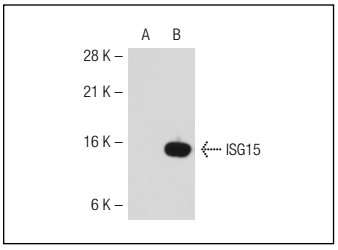
Molecular Weight of ISG15: 15 kDa.

Positive Controls: ISG15 (m): 293T Lysate: sc-121117 or HeLa whole cell lysate: sc-2200.

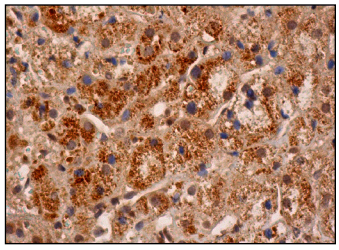
STORAGE

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

DATA



ISG15 (H-150): sc-50366. Western blot analysis of ISG15 expression in non-transfected: sc-117752 (**A**) and mouse ISG15 transfected: sc-121117 (**B**) 293T whole cell lysates.



ISG15 (H-150): sc-50366. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Everett, R.D., et al. 2008. Stat1 and IRF-3-dependent pathways are not essential for repression of ICP0-null mutant herpes simplex virus type 1 in human fibroblasts. J. Virol. 82: 8871-8881.
2. Everett, R.D., et al. 2009. Herpes simplex virus type 1 regulatory protein ICP0 aids infection in cells with a preinduced interferon response but does not impede interferon-induced gene induction. J. Virol. 83: 4978-4983.
3. Gasparovic, M.L., et al. 2009. Modulation of PML protein expression regulates JCV infection. Virology 390: 279-288.
4. Klein, C., et al. 2010. Transcriptional profiling of equine endometrium during the time of maternal recognition of pregnancy. Biol. Reprod. 83: 102-113.
5. Everett, R.D., et al. 2010. Comparison of the biological and biochemical activities of several members of the alphaherpesvirus ICP0 family of proteins. J. Virol. 84: 3476-3487.
6. Klein, C., et al. 2011. The expression of interferon-stimulated gene 15 in equine endometrium. Reprod. Domest. Anim. 46: 692-698.
7. Durfee, L.A. and Huibregtse, J.M. 2012. The ISG15 conjugation system. Methods Mol. Biol. 832: 141-149.
8. Kowalczyk-Zieba, I., et al. 2012. Lysophosphatidic acid action in the bovine corpus luteum-an *in vitro* study. J. Reprod. Dev. 58: 661-671.