

ISG20 (L-13): sc-34112

BACKGROUND

Interferon-stimulated gene 20 kDa (ISG20) protein is a 3' to 5' exonuclease that specifically targets single-stranded RNA for degradation. Located in promyelocytic leukemia (PML) nuclear bodies, ISG20 is present in peripheral blood leukocytes, spleen, thymus, colon and lung tissues. Constitutive expression of ISG20 confers resistance to vesicular stomatitis virus (VSV), influenza virus and encephalomyocarditis virus (EMCV). In addition to providing antiviral protection, ISG20 may mediate estrogen influence on cellular proliferation and differentiation.

REFERENCES

1. Pentecost, B.T. 1998. Expression and estrogen regulation of the HEM45 mRNA in human tumor lines and in the rat uterus. *J. Steroid Biochem. Mol. Biol.* 64: 25-33.
2. Nguyen, L.H. 2001. The human interferon- and estrogen-regulated ISG20/HEM45 gene product degrades single-stranded RNA and DNA *in vitro*. *Biochemistry* 40: 7174-7179.
3. Espert, L. 2003. ISG20, a new interferon-induced RNase specific for single-stranded RNA, defines an alternative antiviral pathway against RNA genomic viruses. *J. Biol. Chem.* 278: 16151-16158.
4. Espert, L. 2004. The exonuclease ISG20 is directly induced by synthetic dsRNA via NF κ B and IRF-1 activation. *Oncogene* 23: 4636-4640.
5. Espert, L. 2005. Interferon-induced exonuclease ISG20 exhibits an antiviral activity against human immunodeficiency virus type I. *J. Gen. Virol.* 86: 2221-2229.

CHROMOSOMAL LOCATION

Genetic locus: ISG20 (human) mapping to 15q26; Isg20 (mouse) mapping to 7 D2.

SOURCE

ISG20 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ISG20 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-34112 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-34112 X, 200 μ g/0.1 ml.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

ISG20 (L-13) is recommended for detection of ISG20 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (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 ISG20 siRNA (m): sc-45249.

ISG20 (L-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ISG20: 20 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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