

ABCE1 (H-105): sc-99064

BACKGROUND

ABCE1 (RNS4I, RLI) is a mediator of the 2-5A/RNase L pathway. The 2-5A/RNase L system is considered an essential pathway of interferon (IFN) action. In the pathway, IFN stimulation activates 2-5A synthetases which convert ATP into a set of atypical oligomers known as 2-5A. These oligomers in turn activate RNase L (RNS4), which leads to inhibition of protein synthesis by cleaving mRNAs at the 3' side of UpNp sequences. This inhibition necessitates the association of ABCE1 with RNase L and is dependent on the ratio between the two proteins. The 2-5A/RNase L system could also play a more general physiological role, for instance, in the regulation of RNA stability in mammalian cells.

REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601213. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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4. Chen, Z.Q., Dong, J., Ishimura, A., Daar, I., Hinnebusch, A.G. and Dean, M. 2006. The essential vertebrate ABCE1 protein interacts with eukaryotic initiation factors. *J. Biol. Chem.* 281: 7452-7457.

CHROMOSOMAL LOCATION

Genetic locus: ABCE1 (human) mapping to 4q31.21; Abce1 (mouse) mapping to 8 C2.

SOURCE

ABCE1 (H-105) is a rabbit polyclonal antibody raised against amino acids 1-105 mapping at the N-terminus of ABCE1 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.

STORAGE

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

APPLICATIONS

ABCE1 (H-105) is recommended for detection of ABCE1 of mouse, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ABCE1 (H-105) is also recommended for detection of ABCE1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ABCE1 siRNA (h): sc-60117, ABCE1 siRNA (m): sc-60118, ABCE1 shRNA Plasmid (h): sc-60117-SH, ABCE1 shRNA Plasmid (m): sc-60118-SH, ABCE1 shRNA (h) Lentiviral Particles: sc-60117-V and ABCE1 shRNA (m) Lentiviral Particles: sc-60118-V.

Molecular Weight of ABCE1: 67 kDa.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.