

ABCE1 (N-12): sc-49338

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-prime 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

1. Iida, A., et al. 2002. Catalog of 605 single-nucleotide polymorphisms (SNPs) among 13 genes encoding human ATP-binding cassette transporters: ABCA4, ABCA7, ABCA8, ABCD1, ABCD3, ABCD4, ABCE1, ABCF1, ABCG1, ABCG2, ABCG4, ABCG5 and ABCG8. *J. Hum. Genet.* 47: 285-310.
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/>
3. Shichijo, S., et al. 2005. ABCE1, a member of ATP-binding cassette transporter gene, encodes peptides capable of inducing HLA-A2-restricted and tumor-reactive cytotoxic T lymphocytes in colon cancer patients. *Oncol. Rep.* 13: 907-913.
4. Lingappa, J.R., et al. 2006. Basic of HIV-1 gag with ABCE1 (HP68), a cellular protein important for HIV-1 capsid assembly. *J. Biol. Chem.* 281: 3773-3784.
5. Chen, Z.Q., et al. 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 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-49338 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ABCE1 (N-12) 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 (N-12) 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.

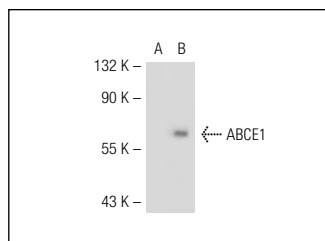
Molecular Weight of ABCE1: 67 kDa.

Positive Controls: ABCE1 (m): 293T Lysate: sc-118158.

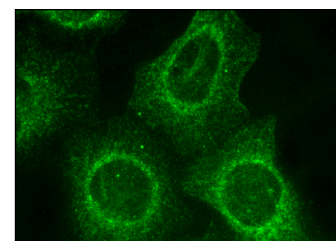
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ABCE1 (N-12): sc-49338. Western blot analysis of ABCE1 expression in non-transfected: sc-117752 (A) and mouse ABCE1 transfected: sc-118158 (B) 293T whole cell lysates.



ABCE1 (N-12): sc-49338. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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.