

ABCE1 (F-1): sc-518185

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 (F-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 206-229 of ABCE1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ABCE1 (F-1) is available conjugated to agarose (sc-518185 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518185 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518185 PE), fluorescein (sc-518185 FITC), Alexa Fluor® 488 (sc-518185 AF488), Alexa Fluor® 546 (sc-518185 AF546), Alexa Fluor® 594 (sc-518185 AF594) or Alexa Fluor® 647 (sc-518185 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518185 AF680) or Alexa Fluor® 790 (sc-518185 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ABCE1 (F-1) is recommended for detection of ABCE1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

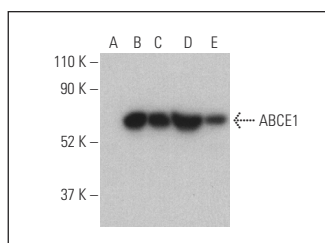
Positive Controls: ABCE1 (m): 293T Lysate: sc-118158, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

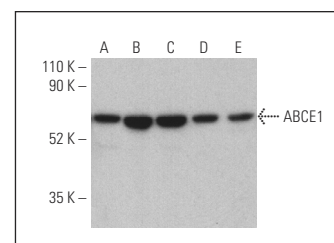
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ABCE1 (F-1): sc-518185. Western blot analysis of ABCE1 expression in non-transfected 293T: sc-117752 (A), mouse ABCE1 transfected 293T: sc-118158 (B), Jurkat (C), A-431 (D) and MCF7 (E) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



ABCE1 (F-1): sc-518185. Western blot analysis of ABCE1 expression in MCF7 (A), A-431 (B), Jurkat (C), NIH/3T3 (D) and KNRK (E) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

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.

PROTOCOLS

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

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