10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-ABCE1 Picoband Antibody

Catalog # ABO11638

Product Information

Application	WB
Primary Accession	P61221
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for ATP-binding cassette sub-family E member 1(ABCE1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6059
Other Names	ATP-binding cassette sub-family E member 1, 2'-5'-oligoadenylate-binding protein, HuHP68, RNase L inhibitor, Ribonuclease 4 inhibitor, RNS4I, ABCE1, RLI, RNASEL1, RNASELI, RNS4I
Calculated MW	67314
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm . Mitochondrion . Localized to clusters of virus formation at the plasma membrane.
Source	Eukaryota
Protein Name	ATP-binding cassette sub-family E member 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human ABCE1 recombinant protein (Position: K419-D599). Human ABCE1 shares 100% amino acid (aa) sequence identity with mouse ABCE1.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

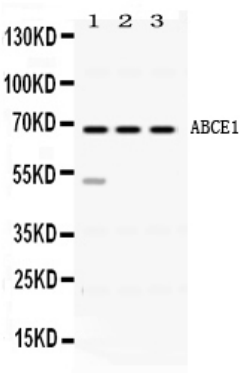
Protein Information

Name	ABCE1
Synonyms	RLI, RNASEL1, RNASELI, RNS4I
Function	Nucleoside-triphosphatase (NTPase) involved in ribosome recycling by mediating ribosome disassembly (PubMed:20122402, PubMed:21448132). Able to hydrolyze ATP, GTP, UTP and CTP (PubMed:20122402). Splits ribosomes into free 60S subunits and tRNA- and mRNA-bound 40S subunits (PubMed:20122402, PubMed:21448132). Acts either after canonical termination facilitated by release factors (ETF1/eRF1) or after recognition of stalled and vacant ribosomes by mRNA surveillance factors (PELO/Pelota) (PubMed:20122402, PubMed:21448132). Involved in the No-Go Decay (NGD) pathway: recruited to stalled ribosomes by the Pelota-HBS1L complex, and drives the disassembly of stalled ribosomes, followed by degradation of damaged mRNAs as part of the NGD pathway (PubMed:21448132). Also plays a role in quality control of translation of mitochondrial outer membrane-localized mRNA (PubMed:29861391). As part of the PINK1-regulated signaling, ubiquitinated by CNOT4 upon mitochondria damage; this modification generates polyubiquitin signals that recruit autophagy receptors to the mitochondrial outer membrane and initiate mitophagy (PubMed:29861391). RNASEL-specific protein inhibitor which antagonizes the binding of 2-5A (5'-phosphorylated 2',5'-linked oligoadenylates) to RNASEL (PubMed:9660177). Negative regulator of the anti-viral effect of the interferon-regulated 2-5A/RNASEL pathway (PubMed:11585831, PubMed:9660177, PubMed:9847332).
Cellular Location	Cytoplasm. Mitochondrion

Background

ATP binding cassette E1 (ABCE1, also RNase L inhibitor) is an ATPase found in humans involved in viral assembly. It is a member of the ATP-binding cassette (ABC) transporters superfamily and OABP subfamily. ABCE1 inhibits the action of ribonuclease L. Ribonuclease L normally binds to 2-5A (5'-phosphorylated 2',5'-linked oligoadenylates) and inhibits the interferon-regulated 2-5A/RNase L pathway, which is used by viruses. ABCE1 heterodimerize with ribonuclease L and prevents its interaction with 2-5A, antagonizing the anti-viral properties of ribonuclease L, and allow the virus to synthesize viral proteins. It has also been implicated to have an effect in tumorcell proliferation and antiapoptosis.

Images



Western blot analysis of ABCE1 expression in rat spleen extract (lane 1), mouse thymus extract (lane 2) and HELA whole cell lysates (lane 3). ABCE1 at 67KD was detected using rabbit anti- ABCE1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11638) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.