

#### KD-Validated Anti-ABCE1 Rabbit Monoclonal Antibody Rabbit monoclonal antibody Catalog # AGI1214

### **Specification**

## **KD-Validated Anti-ABCE1 Rabbit Monoclonal Antibody - Product Information**

Application Primary Accession Reactivity Clonality Isotype Calculated MW Gene Name Aliases	WB, FC P61221 Rat, Human, Mouse Monoclonal Rabbit IgG Predicted, 67 kDa , observed, 67 kDa KDa ABCE1 ABCE1; ATP Binding Cassette Subfamily E Member 1; RLI; RNASEL1; RNASEL1; RNS4I; OABP; RLI1; ATP-Binding Cassette, Sub-Family E (OABP), Member 1; ATP-Binding Cassette Sub-Family E Member 1; 2'-5'-Oligoadenylate-Binding Protein; Ribonuclease 4 Inhibitor; RNase L Inhibitor 1; HuHP68; Ribonuclease L (2',5'-Oligoisoadenylate Synthetase-Dependent) Inhibitor; RNase L
Immunogen	Inhibitor; EC 3.6.5; ABC38 A synthesized peptide derived from human ABCE1

### KD-Validated Anti-ABCE1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 6059 Other Names ATP-binding cassette sub-family E member 1, 3.6.5.-, 2'-5'-oligoadenylate-binding protein, HuHP68, RNase L inhibitor, Ribonuclease 4 inhibitor, RNS4I, ABCE1, RLI, RNASEL1, RNASELI, RNS4I

### **KD-Validated Anti-ABCE1 Rabbit Monoclonal Antibody - Protein Information**

Name ABCE1

Synonyms RLI, RNASEL1, RNASELI, RNS4I

Function

Nucleoside-triphosphatase (NTPase) involved in ribosome recycling by mediating ribosome disassembly (PubMed:<a href="http://www.uniprot.org/citations/20122402" target="\_blank">20122402</a>, PubMed:<a href="http://www.uniprot.org/citations/21448132" target="\_blank">20122402</a>). Able to hydrolyze ATP, GTP, UTP and CTP (PubMed:<a href="http://www.uniprot.org/citations/20122402" target="\_blank">20122402</a>). Able to hydrolyze ATP, GTP, UTP and CTP (PubMed:<a href="http://www.uniprot.org/citations/20122402" target="\_blank">20122402</a>). Splits ribosomes into free 60S subunits and tRNA- and mRNA-bound 40S subunits (PubMed:<a href="http://www.uniprot.org/citations/20122402" target="\_blank">20122402</a>). Splits



href="http://www.uniprot.org/citations/21448132" target="\_blank">21448132</a>). 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:<a

href="http://www.uniprot.org/citations/20122402" target="\_blank">20122402</a>, PubMed:<a href="http://www.uniprot.org/citations/21448132" target="\_blank">20122402</a>, PubMed:<a href="http://www.uniprot.org/citations/21448132" target="\_blank">21448132</a>). 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:<a href="http://www.uniprot.org/citations/21448132" target="\_blank">21448132" target="\_blank">21448132" target="\_blank">21448132" target="\_blank">21448132</a>). Also plays a role in quality control of translation of damaged mRNAs as part of the NGD pathway (PubMed:<a href="http://www.uniprot.org/citations/21448132" target="\_blank">21448132</a>). Also plays a role in quality control of translation of mitochondrial outer membrane- localized mRNA (PubMed:<a

href="http://www.uniprot.org/citations/29861391" target="\_blank">29861391</a>). 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:<a

href="http://www.uniprot.org/citations/29861391" target="\_blank">29861391</a>). RNASEL-specific protein inhibitor which antagonizes the binding of 2-5A (5'-phosphorylated 2',5'-linked oligoadenylates) to RNASEL (PubMed:<a

href="http://www.uniprot.org/citations/9660177" target="\_blank">9660177</a>). Negative
regulator of the anti-viral effect of the interferon-regulated 2-5A/RNASEL pathway (PubMed:<a
href="http://www.uniprot.org/citations/11585831" target="\_blank">11585831</a>, PubMed:<a
href="http://www.uniprot.org/citations/9660177" target="\_blank">9660177</a>, PubMed:<a
href="http://www.uniprot.org/citations/9660177" target="\_blank">9847332</a>).

**Cellular Location** Cytoplasm. Mitochondrion

# **KD-Validated Anti-ABCE1 Rabbit Monoclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

KD-Validated Anti-ABCE1 Rabbit Monoclonal Antibody - Images





Western blotting analysis using anti-ABCE1 antibody (Cat#AGI1214). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ABCE1 antibody (Cat#AGI1214, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-ABCE1 antibody (Cat#AGI1214). ABCE1 expression in wild type (WT) and ABCE1 shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-ABCE1 antibody (Cat#AGI1214, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of ABCE1 expression in C2C12 cells using ABCE1 antibody (Cat#AGI1214, 1:2000). Green, isotype control; red, ABCE1.