

Basic Information

Product Name	Anti-ABCA1 Antibody
Gene Name	ABCA1
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB
Contents	500 ug/ml antibody with PBS , 0.02% Na ₂ S ₂ O ₃ , 1 mg BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ABCA1 (2231-2261aa KDL ₂ SLHKNQTVVDVAVLTSLQDEKVKESYV), identical to the related mouse sequence.
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	254KD
Dilution Ratios	Western blot(WB):1:500-2000

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

ABCA1 (ATP-binding cassette, sub-family A (ABC1), member 1), also known as ABC1, the cholesterol efflux regulatory protein (CERP) is a protein which in humans is encoded by the ABCA1 gene. The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intracellular membranes contain 2,261 amino acids. Dot blot analysis of 50 tissues revealed ubiquitous expression of ABCA1 mRNA, with highest expression in placenta, liver, lung, adrenal glands, and all fetal tissues examined, and lowest expression in kidney, pancreas, pituitary, mammary gland, and bone marrow. This protein is a member of the ABCA subfamily. Members of the ABCA subfamily comprise the only major ABC subfamily found exclusively in multicellular eukaryotes. With cholesterol as its substrate, this protein functions as a cholesterol efflux pump in the cellular lipid removal pathway. Using human ABCA1 expressed in the membrane fraction of sf9 insect cells, Szakacs et al. found specific, Mg(2+)-dependent ATP binding and low basal ATPase activity. Addition of potential lipid substrates or lipid acceptors did not modify the ATPase activity or nucleotide occlusion by ABCA1. Szakacs et al. speculated that ABCA1 may be a regulatory protein or may require other protein partners for full activation.

Reference

Anti-ABCA1 Antibody被引用在1文献中。

Selected Validation Data

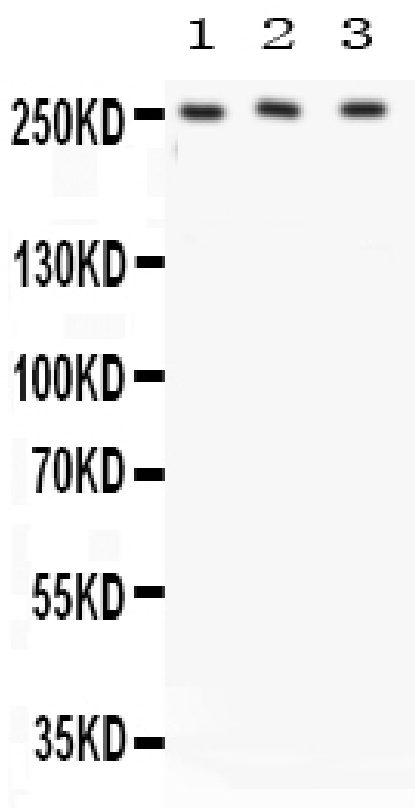


Figure 1. Western blot analysis of ABCA1 using anti-ABCA1 antibody (PB0490). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Liver Tissue Lysate Lane 2: Mouse Liver Tissue Lysate Lane 3: SMMC Whole Cell Lysate After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ABCA1 antigen affinity purified polyclonal antibody (Catalog # PB0490) at 0.5 μ g/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ABCA1 at approximately 254KD. The expected band size for ABCA1 is at 254KD.