

Basic Information

Product Name	Anti-ADAR Antibody	
Gene Name	ADAR	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human ADAR1 recombinant protein (Position: S128-Q346). Human ADAR1 shares 90.2% and 50.7% amino acid (aa) sequence identity with mouse and rat ADAR1, respectively.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	110KD/150KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF):1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells	

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

Double-stranded RNA-specific adenosine deaminase, also known as ADAR1, is an enzyme that in humans is encoded by the ADAR gene. It is mapped to 1q21.3. This gene encodes the enzyme responsible for RNA editing by site-specific deamination of adenosines. This enzyme destabilizes double-stranded RNA through conversion of adenosine to inosine. Mutations in this gene have been associated with dyschromatosis symmetrica hereditaria. Alternative splicing results in multiple transcript variants.

Selected Validation Data

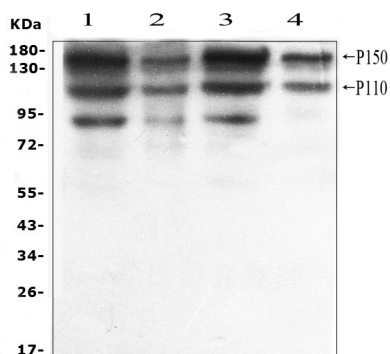


Figure 1. Western blot analysis of ADAR1 using anti-ADAR1 antibody (PB1028).

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: HELA whole cell lysates,

Lane 2: A549 whole cell lysates

Lane 3: MCF-7 whole cell lysates

Lane 4: HEPG2 whole cell lysates.

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-ADAR1 antigen affinity purified polyclonal antibody (Catalog # PB1028) at 0.5 µg/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 ADAR1 at approximately 110KD, 150KD. The expected band size for ADAR1 is at 136KD.

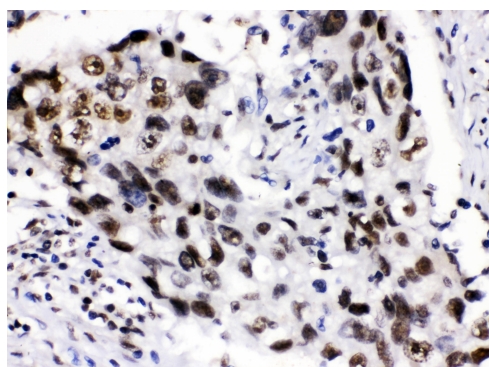


Figure 2. IHC analysis of ADAR1 using anti-ADAR1 antibody (PB1028).

ADAR1 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-ADAR1 Antibody (PB1028) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

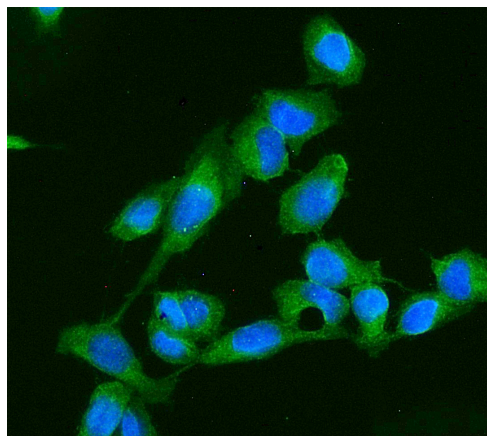


Figure 3. ICC analysis of anti- AK1 antibody (PB1028).was detected in immunocytochemical section of U2OS cells. Cells were stained using the Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog#BA1127) and counterstained with DAPI (blue).

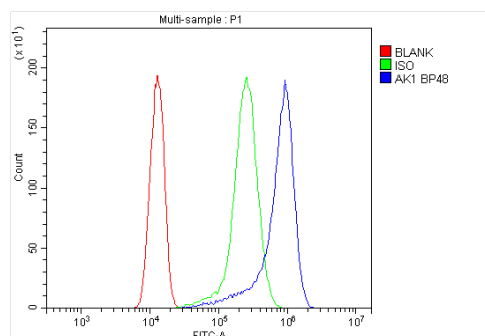


Figure 4. Flow cytometry analysis of A431 cell(1×10^6) DyLight488 conjugated goat anti-rabbit IgG(blue) was used as secondary antibody.Isotype control antibody (Green line) was rabbit IgG DyLight488. Unlabelled sample (Red line).