

Basic Information

Product Name	Anti-RNH1 Antibody (Clone#4F3)	
Gene Name	RNH1	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human RNH1, different from the related mouse sequence by five amino acids, and from the related rat sequence by four amino acids.	
Concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	50 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer, pH 6.0, or PH 8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

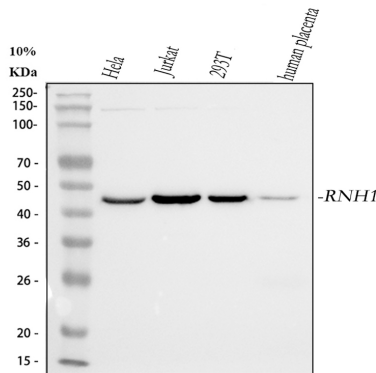
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Ribonuclease inhibitor is an enzyme that in humans is encoded by the RNH1 gene. Placental ribonuclease inhibitor (PRI) is a member of a family of proteinaceous cytoplasmic RNase inhibitors that occur in many tissues and bind to both intracellular and extracellular RNases. In addition to control of intracellular RNases, the inhibitor may have a role in the regulation of angiogenesis. Ribonuclease inhibitor, of 50,000 Da, binds to ribonucleases and holds them in a latent form. Since neutral and alkaline ribonucleases probably play a critical role in the turnover of RNA in eukaryotic cells, RNH may be essential for control of mRNA turnover; the interaction of eukaryotic cells with ribonuclease may be reversible in vivo.

Selected Validation Data



Western blot analysis of anti-RNH1 antibody (M04147). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

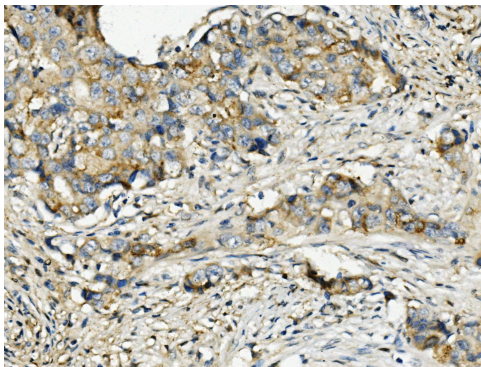
Lane 1: human Hela whole cell lysates,

Lane 2: human Jurkat whole cell lysates,

Lane 3: human 293T whole cell lysates,

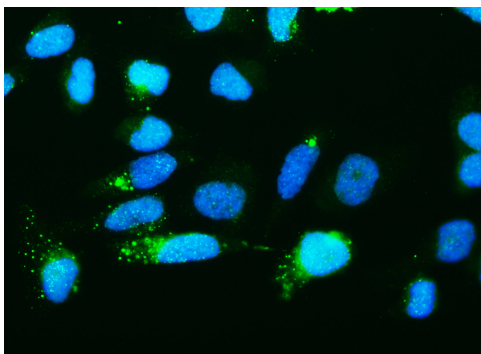
Lane 4: human placenta tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-RNH1 antigen affinity purified monoclonal antibody (M04147) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for RNH1 at approximately 45 kDa. The expected band size for RNH1 is at 50 kDa.



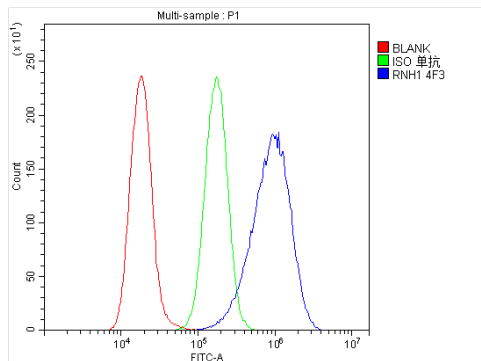
IHC analysis of RNH1 using anti-RNH1 antibody (M04147).

RNH1 was detected in a paraffin-embedded section of human mammary cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-RNH1 Antibody (M04147) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of RNH1 using anti-RNH1 antibody (M04147).

RNH1 was detected in an immunocytochemical section of Hela cells. The section was incubated with mouse anti-RNH1 Antibody (M04147) at a dilution of 1:100. DyLight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of A549 cells using anti-RNH1 antibody (M04147).

Overlay histogram showing A549 cells stained with M04147 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-RNH1 Antibody (M04147) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.