

Rabbit MNAT1 Polyclonal Antibody | anti-MNAT1 antibody

Anti-MNAT1 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127379	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

MNAT1; Polyclonal Antibody; Anti-MNAT1 Antibody Picoband; Phospholipid-transporting ATPase IG; ATPase phospholipid transporting 11C; Phospholipid-transporting ATPase IG (EC:7.6.2.1); ATPase IQ; ATPase class VI type 11C; P4-ATPase flippase complex alpha subunit ATP11C; ATP11C; ATP1G; ATP1Q; anti-MNAT1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Widely expressed.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-MNAT1 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human MNAT1 recombinant protein (Position: M1-S309).
Subcellular Localization	Endoplasmic reticulum membrane. Cell membrane. Multi-pass membrane protein
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Catalytic component of a P4-ATPase flippase complex which catalyzes the hydrolysis of ATP coupled to the transport of aminophospholipids from the outer to the inner leaflet of various membranes and ensures the maintenance of asymmetric distribution of phospholipids. In the cell membrane of erythrocytes, it is required to maintain phosphatidylserine (PS) in the inner leaflet preventing its exposure on the surface. This asymmetric distribution is critical for the survival of erythrocytes in circulation since externalized PS is a phagocytic signal for splenic macrophages. Phospholipid translocation seems also to be implicated in vesicle formation and in uptake of lipid signaling molecules. Required for B cell differentiation past the pro-B cell stage. Seems to mediate PS flipping in pro-B cells. May be involved in the transport of cholestatic bile acids.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)
Figure 3. Flow Cytometry analysis of MCF-7 cells using anti-MNAT1 antibody (AAA127379). Overlay histogram showing MCF-7 cells stained with AAA127379 (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 rabbit anti-MNAT1 Antibody (AAA127379, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of MNAT1 using anti-MNAT1 antibody (AAA127379). 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 30 ug of sample under reducing conditions. Lane 1: human A431 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human A375 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: rat RH35 whole cell lysates, Lane 7: mouse testis tissue lysates, Lane 8: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-MNAT1 antigen affinity purified polyclonal antibody (#AAA127379) at 0.25ug/mL overnight at 4 degree 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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for MNAT1 at approximately 35 kDa. The expected band size for MNAT1 is at 35 kDa.



IF (Immunofluorescence)
Figure 2. IF analysis of MNAT1 using anti-MNAT1 antibody (AAA127379) and anti-Beta Tubulin antibody (M01857-3). MNAT1 was detected in immunocytochemical section of HELA cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-MNAT1 Antibody (AAA127379) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-MNAT1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-MNAT1 antibody	Primary Antibodies; Signal Transduction
References	1. "Entrez Gene: MNAT1 menage a trois homolog 1, cyclin H assembly factor (Xenopus laevis)". 2. Eki T, Okumura K, Abe M, Kagotani K, Taguchi H, Murakami Y, Pan ZQ, Hanaoka F (April 1998). "Mapping of the human genes encoding cyclin H (CCNH) and the CDK-activating kinase (CAK) assembly factor MAT1 (MNAT1) to chromosome bands 5q13.3-q14 and 14q23, respectively". Genomics 47 (1): 115-20. 3. Talukder AH, Mishra SK, Mandal M, Balasenthil S, Mehta S, Sahin AA, Barnes CJ, Kumar R (March 2003). "MTA1 interacts with MAT1, a cyclin-dependent kinase-activating kinase complex ring finger factor, and regulates estrogen receptor transactivation functions". J. Biol. Chem. 278 (13): 11676-85.

NCBI AND UNIPROT INFORMATION

NCBI GI #	295789085
NCBI GeneID	4331
NCBI Accession #	NP_001171434.1
NCBI GenBank Nucleotide #	NM_001177963.1
UniProt Accession #	P51948; Q15817; Q6ICQ7

Molecular Weight	35,823 Da
NCBI Official Full Name	CDK-activating kinase assembly factor MAT1 isoform 2
NCBI Official Synonym Full Names	menage a trois homolog 1, cyclin H assembly factor (Xenopus laevis)
NCBI Official Symbol	MNAT1
NCBI Official Synonym Symbols	MAT1; TFB3; CAP35; RNF66
NCBI Protein Information	CDK-activating kinase assembly factor MAT1; RING finger protein 66; RING finger protein MAT1; CDK7/cyclin-H assembly factor; cyclin G1 interacting protein; cyclin-G1-interacting protein; menage a trois 1 (CAK assembly factor)
UniProt Protein Name	CDK-activating kinase assembly factor MAT1
UniProt Gene Name	MNAT1
UniProt Synonym Gene Names	CAP35; MAT1; RNF66
UniProt Entry Name	MAT1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
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