Mouse ATP5F1,2,3/ATP5MC1,2,3 Monoclonal Antibody | anti-ATP5MC1,2,3 antibody

Anti-ATP5F1,2,3/ATP5MC1,2,3 Antibody (monoclonal, 12E9)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125935	**Mouse**	**Human, Mouse, Rat, Monkey**	**Flow Cytometry, Functional Assay, Western Blot**

PRODUCT SYNONYMS

ATP5F1; 2; 3/ATP5MC1; 3; Monoclonal Antibody; Anti-ATP5F1; 3 Antibody (monoclonal; 12E9); ATP5MC1; ATP5G1; ATP synthase F(0 complex subunit C1; mitochondrial; ATP synthase lipid-binding protein; ATP synthase membrane subunit c locus 1; ATP synthase proteolipid P1; ATP synthase proton-transporting mitochondrial F(0 complex subunit C1; ATPase protein 9; ATPase subunit c; anti-ATP5MC1; 3 antibody

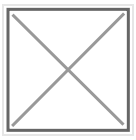
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	12E9
Specificity	Mouse IgG monoclonal antibody for ATP5F1,2,3/ATP5MC1,2,3 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-ATP5MC1,2,3 antibody	FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived human ATP5G1,2,3/ATP5MC1,2,3 recombinant protein (Position: D62-L113). Human ATP5MC1,2,3 shares 100% amino acid (aa) sequence identitywith both mouse and rat ATP5MC1,2,3.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Lab recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG ( ) for Western blot.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES

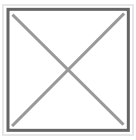
FCM/FACS (Flow Cytometry)
Figure 4. Flow Cytometry analysis of RH35 cells using anti-ATP5F1,2,3/ATP5MC1,2,3 antibody (AAA125935).Overlay histogram showing RH35 cells stained with AAA125935 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti- ATP5F1,2,3/ATP5MC1,2,3 Antibody (AAA125935, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

FCM/FACS (Flow Cytometry)
Figure 3. Flow Cytometry analysis of HEPG2 cells using anti-ATP5F1,2,3/ATP5MC1,2,3 antibody (AAA125935).Overlay histogram showing HEPG2 cells stained with AAA125935 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti- ATP5F1,2,3/ATP5MC1,2,3 Antibody (AAA125935, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of HEPA1-6 cells using anti-ATP5F1,2,3/ATP5MC1,2,3 antibody (AAA125935).Overlay histogram showing HEPA1-6 cells stained with AAA125935 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti- ATP5F1,2,3/ATP5MC1,2,3 Antibody (AAA125935, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/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 ATP5F1,2,3/ATP5MC1,2,3 using anti-ATP5F1,2,3/ATP5MC1,2,3 antibody (AAA125935).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: human HL-60 whole cell lysatesLane 2: monkey COS-7 whole cell lysatesLane 3: rat kidney tissue lysatesLane 4: rat heart tissue lysatesLane 5: mouse heart tissue 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 mouse anti- ATP5F1,2,3/ATP5MC1,2,3 antigen affinity purified monoclonal antibody (Catalog # AAA125935) at 0. 5 μg/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-mouse 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 with Tanon 5200 system. A specific band was detected for ATP5F1,2,3/ATP5MC1,2,3 at approximately 10-14KD. The expected band size for ATP5F1,2,3/ATP5MC1,2,3 is at 10-14KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ATP5MC1,2,3 antibody	The ATP5MC1 gene is one of three human paralogs that encode membrane subunit c of the mitochondrial ATP synthase. It is mapped to 17q21. 32. This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel seems to have nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene is one of three genes that encode subunit c of the proton channel. Each of the three genes have distinct mitochondrial import sequences but encode the identical mature protein. Alternatively spliced transcript variants encoding the same protein have been identified.
References	1. Dyer, M. R., Walker, J. E. Sequences of members of the human gene family for the c subunit of mitochondrial ATP synthase. Biochem. J. 293: 51-64, 1993. 2. Walker, J. E. Determination of the structures of respiratory enzyme complexes from mammalian mitochondria. Biochim. Biophys. Acta 1271: 221-227, 1995. 3. Yan, W. L., Lerner, T. J., Haines, J. L., Gusella, J. F. Sequence analysis and mapping of a novel human mitochondrial ATP synthase subunit 9 cDNA (ATP5G3). Genomics 24: 375-377, 1994.

NCBI AND UNIPROT INFORMATION

NCBI GI #	50659069
NCBI GeneID	516
NCBI Accession #	NP_001002027
NCBI GenBank Nucleotide #	NM_001002027.1
UniProt Accession #	P05496
NCBI Official Full Name	ATP synthase F(0) complex subunit C1, mitochondrial
NCBI Official Synonym Full Names	ATP synthase, H+ transporting, mitochondrial Fo complex, subunit C1 (subunit 9)
NCBI Official Symbol	ATP5G1
NCBI Official Synonym Symbols	ATP5A; ATP5G
NCBI Protein Information	ATP synthase F(0) complex subunit C1, mitochondrial; ATP synthase F(0) complex subunit C1, mitochondrial; ATP synthase lipid-binding protein, mitochondrial; ATP synthase proteolipid P1; ATP synthase proton-transporting mitochondrial F(0) complex subunit C
UniProt Protein Name	ATP synthase F(0) complex subunit C1, mitochondrial

UniProt Gene Name	**ATP5G1**
UniProt Entry Name	AT5G1_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.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/atp5f1-2-3-atp5mc1-2-3-antibody-clone-12e9-flow-cytometry-western-blot-elisa/125935