ARG45233
anti-ATP5A1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATP5F1A
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Target Name	ATP5F1A
Species	Human
Immunogen	Recombinant protein containing to human ATP5F1A.
Conjugation	Un-conjugated
Alternate Names	ATP5A1; ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle; MC5DN4; ATP5AL2; MOM2; HEL-S-123m; ATP synthase subunit alpha, mitochondrial; OMR; ORM; ATPM; ATP5A; hATP1; COXPD22

Application Instructions

Application table

Application	Dilution
FACS	1 - 3 µg/10^6 cells
ICC/IF	5 µg/ml
IHC-P	2-5 µg/ml
WB	0.25-0.5 µg/ml

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Observed Size	54 kDa

Properties

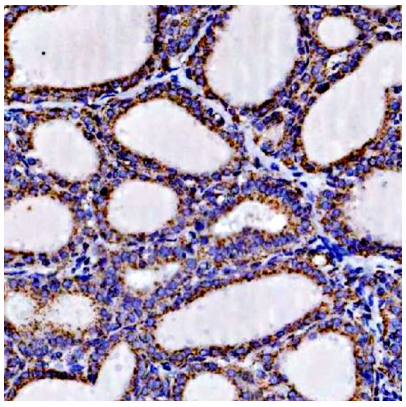
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl and 4% Trehalose.
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

	before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

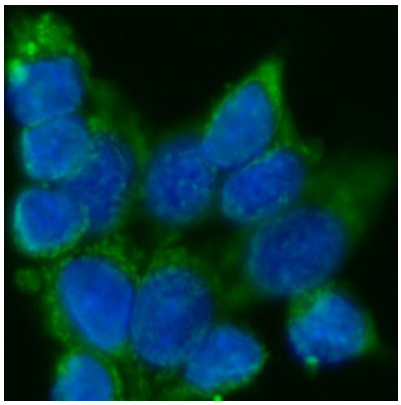
Gene Symbol	ATP5A1
Gene Full Name	ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle
Background	This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, using an electrochemical gradient of protons across the 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 consists of three main subunits (a, b, c). This gene encodes the alpha subunit of the catalytic core. Alternatively spliced transcript variants encoding the different isoforms have been identified. Pseudogenes of this gene are located on chromosomes 9, 2, and 16. [provided by RefSeq, Mar 2012]
Function	Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F(1). Rotation of the central stalk against the surrounding alpha(3)beta(3) subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites (By similarity). [UniProt]
Calculated Mw	60 kDa
PTM	The N-terminus is blocked. Acetylated on lysine residues. BLOC1S1 is required for acetylation.
Cellular Localization	Cell membrane; Membrane; Mitochondrion; Mitochondrion inner membrane [UniProt]

Images



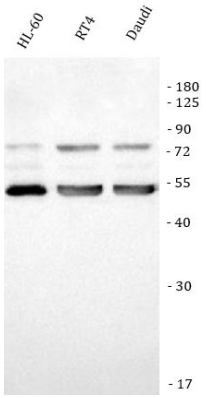
ARG45233 anti-ATP5A1 antibody IHC-P image

Immunohistochemistry: Human thyroid cancer stained with ARG45233 anti-ATP5A1 antibody at 2 µg/ml dilution.



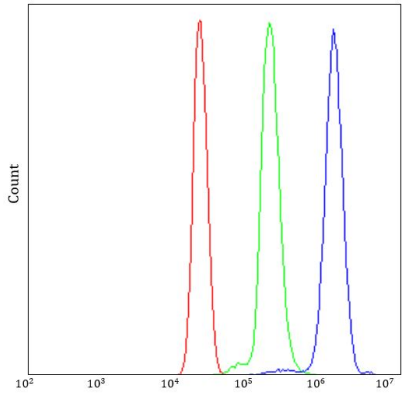
ARG45233 anti-ATP5A1 antibody ICC/IF image

Immunofluorescence: HepG2 stained with ARG45233 anti-ATP5A1 antibody at 5 ug/ml dilution.



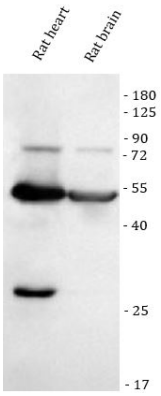
ARG45233 anti-ATP5A1 antibody WB image

Western blot: HL-60, RT4, and Daudi stained with ARG45233 anti-ATP5A1 antibody at 0.5 µg/ml dilution.



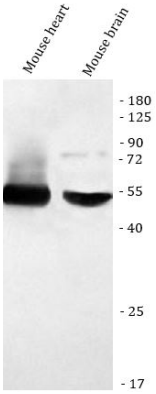
ARG45233 anti-ATP5A1 antibody FACS image

Flow Cytometry: U937 stained with ARG45233 anti-ATP5A1 antibody at 1 µg/10^6 cells dilution.



ARG45233 anti-ATP5A1 antibody WB image

Western blot: Rat heart and rat brain stained with ARG45233 anti-ATP5A1 antibody at 0.5 µg/ml dilution.



ARG45233 anti-ATP5A1 antibody WB image

Western blot: Mouse heart and mouse brain stained with ARG45233 anti-ATP5A1 antibody at 0.5 µg/ml dilution.