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ATP5A1 Antibody (internal region, near N-Term)

Peptide-affinity purified goat antibody
Catalog # AF4082a

Specification

ATP5A1 Antibody (internal region, near N-Term) - Product Information

Application	**WB, E**
Primary Accession	P25705
Other Accession	NP_004037.1, NP_001244263.1, NP_001001935.1, 498, 11946 (mouse), 65262 (rat)
Reactivity	**Human, Mouse, Rat, Pig**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**59751**

ATP5A1 Antibody (internal region, near N-Term) - Additional Information

Gene ID 498

Other Names
ATP synthase subunit alpha, mitochondrial, ATP5A1, ATP5A, ATP5AL2, ATPM

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATP5A1 Antibody (internal region, near N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATP5A1 Antibody (internal region, near N-Term) - Protein Information

Name ATP5F1A (HGNC:823)

Function
Subunit alpha, of the mitochondrial membrane ATP synthase complex (F(1)F(0) ATP synthase or

Complex V) that 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 (Probable). ATP synthase complex consist of a soluble F(1) head domain - the catalytic core - and a membrane F(1) domain - the membrane proton channel (PubMed:37244256). These two domains are linked by a central stalk rotating inside the F(1) region and a stationary peripheral stalk (PubMed:37244256). 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 (Probable). In vivo, can only synthesize ATP although its ATP hydrolase activity can be activated artificially in vitro (By similarity). With the catalytic subunit beta (ATP5F1B), forms the catalytic core in the F(1) domain (PubMed:37244256). Subunit alpha does not bear the catalytic high- affinity ATP-binding sites (Probable). Binds the bacterial siderophore enterobactin and can promote mitochondrial accumulation of enterobactin-derived iron ions (PubMed:30146159).

Cellular Location
Mitochondrion. Mitochondrion inner membrane {ECO:0000250|UniProtKB:P19483}; Peripheral membrane protein {ECO:0000250|UniProtKB:P19483}; Matrix side {ECO:0000250|UniProtKB:P19483}. Cell membrane; Peripheral membrane protein; Extracellular side. Note=Colocalizes with HRG on the cell surface of T-cells (PubMed:19285951).

Tissue Location
Fetal lung, heart, liver, gut and kidney. Expressed at higher levels in the fetal brain, retina and spinal cord

ATP5A1 Antibody (internal region, near N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATP5A1 Antibody (internal region, near N-Term) - Images

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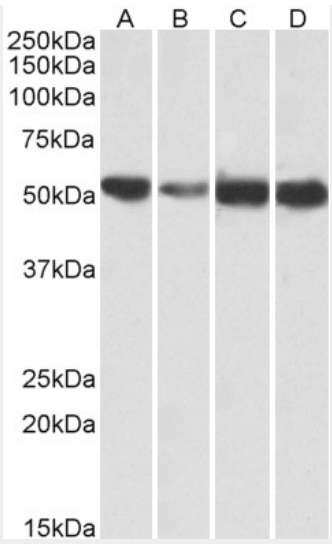

AF4082a (0.01 µg/ml) staining of Human (A), fetal Mouse (B), adult Mouse (C) and adult Rat (D) Heart lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

ATP5A1 Antibody (internal region, near N-Term) - Background

This antibody is expected to recognize all reported isoforms (NP_004037.1; NP_001244263.1; NP_001001935.1). Reported variants represent identical protein: NP_001244264.1, NP_001001935.1. Reported variants represent identical protein: NP_004037.1, NP_00100

ATP5A1 Antibody (internal region, near N-Term) - References

The putative tumour modifier gene ATP5A1 is not mutated in human colorectal cancer cell lines but expression levels correlate with TP53 mutations and chromosomal instability. Seth R, Keeley J, Abu-Ali G, Crook S, Jackson D, Ilyas M. Journal of clinical pathology 2009 Jul 62 (7): 598-603. PMID: 19261598