

ATP5C1 (S-19): sc-241858

BACKGROUND

ATP5C1 (ATP synthase, H⁺ transporting, mitochondrial F1 complex, γ polypeptide 1), also known as ATP5C or ATP5CL1, is a 298 amino acid protein that belongs to the ATPase γ chain family. F-type ATPases, such as ATP5C1, consist of two components: CF1, a soluble, catalytic core that consists of five subunits (α 3, β 3, γ 1, δ 1 and ϵ 1), and CF0, a membrane proton channel that contains three main subunits (a, b and c). ATP5C1 encodes the γ subunit of the catalytic core. Localizing to both mitochondrial inner membrane and peripheral membrane, ATP5C1 is expressed in heart and skeletal muscle, which require rapid energy supply, as well as brain, liver, kidney, skin, intestine and stomach. ATP5C1 exists as two alternatively spliced isoforms, isoform liver (L) and isoform heart (H), and is encoded by a gene that maps to human chromosome 10p14. ATP5C1 also has a pseudogene on chromosome 14.

REFERENCES

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- Yasuda, R., et al. 1998. F1-ATPase is a highly efficient molecular motor that rotates with discrete 120 degree steps. *Cell* 93: 1117-1124.
- Hofmann, W.K., et al. 2002. Relation between resistance of Philadelphia-chromosome-positive acute lymphoblastic leukaemia to the tyrosine kinase inhibitor ST1571 and gene-expression profiles: a gene-expression study. *Lancet* 359: 481-486.
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CHROMOSOMAL LOCATION

Genetic locus: ATP5C1 (human) mapping to 10p14; Atp5c1 (mouse) mapping to 2 A1.

SOURCE

ATP5C1 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ATP5C1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241858 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATP5C1 (S-19) is recommended for detection of ATP5C1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ATP5C1 (S-19) is also recommended for detection of ATP5C1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ATP5C1 siRNA (h): sc-90619, ATP5C1 siRNA (m): sc-141345, ATP5C1 shRNA Plasmid (h): sc-90619-SH, ATP5C1 shRNA Plasmid (m): sc-141345-SH, ATP5C1 shRNA (h) Lentiviral Particles: sc-90619-V and ATP5C1 shRNA (m) Lentiviral Particles: sc-141345-V.

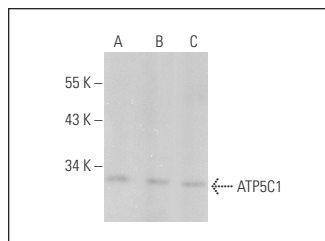
Molecular Weight of ATP5C1: 33 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ATP5C1 (S-19): sc-241858. Western blot analysis of ATP5C1 expression in Jurkat (A), K-562 (B) and HL-60 (C) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.