



ATP5J (C-18): sc-83192

BACKGROUND

Mitochondrial ATP synthase is composed of two multi-subunit complexes that utilize an inner membrane electrochemical gradient to catalyze the synthesis of ATP during oxidative phosphorylation. The two multi-subunit complexes are designated F1 and F0, the former of which comprises the soluble catalytic core and the latter of which comprises the membrane-spanning proton channel of ATP synthase. F1 consists of five distinct subunits, designated ATP5A, F1-ATPase, ATP5C1, ATP5D and ATP5E, while F0 consists of ten subunits, designated ATP5H, ATP5G1, ATP5I, ATP5G2, ATP5J2, ATP5J, ATP5G3, ATP5S, ATP5F1 and ATP5L. ATP5J, also known as ATP5A, ATPM, CF6 or F6, is a 108 amino acid protein that localizes to the mitochondrial membrane and exists as a subunit of the F0 complex. ATP5J is expressed as multiple alternatively spliced isoforms and is required for proper F1 and F0 interaction. Human ATP5J shares 73% sequence similarity with its rat counterpart, suggesting a conserved role between species.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: ATP5J (human) mapping to 21q21.3; Atp5j (mouse) mapping to 16 C3.3.

SOURCE

ATP5J (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of ATP5J of human origin.

PRODUCT

Each vial contains 100 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-83192 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATP5J (C-18) is recommended for detection of ATP5J of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other ATP5 family members.

Suitable for use as control antibody for ATP5J siRNA (h): sc-91439, ATP5J siRNA (m): sc-141352, ATP5J shRNA Plasmid (h): sc-91439-SH, ATP5J shRNA Plasmid (m): sc-141352-SH, ATP5J shRNA (h) Lentiviral Particles: sc-91439-V and ATP5J shRNA (m) Lentiviral Particles: sc-141352-V.

Molecular Weight of ATP5J: 13 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.