SANTA CRUZ BIOTECHNOLOGY, INC.

ATP5I (Y-15): sc-104099

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mitochondrial ATP synthases (ATPases) transduce the energy contained in membrane electrochemical proton gradients into the energy required for synthesis of high-energy phosphate bonds. ATPases contain two linked complexes: F_1, the hydrophilic catalytic core; and F_0, the membrane-embedded protein channel. The two complexes are linked 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, with proton translocation across the membrane. ATP5I, also known as mitochondrial ATP synthase subunit E or ATP5K, is a 69 amino acid protein member of the ATPase E subunit family. Localized to the inner membrane of the mitochondria, ATP5I is a part of the F_0 complex.

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: ATP5I (human) mapping to 4p16.3; Atp5k (mouse) mapping to 5 F.

SOURCE

ATP5I (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ATP5I of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-104099 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATP5I (Y-15) is recommended for detection of ATP5I of mouse, rat 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 ATP5I siRNA (h): sc-88980, ATP5I siRNA (m): sc-105106, ATP5I shRNA Plasmid (h): sc-88980-SH, ATP5I shRNA Plasmid (m): sc-105106-SH, ATP5I shRNA (h) Lentiviral Particles: sc-88980-V and ATP5I shRNA (m) Lentiviral Particles: sc-105106-V.

Molecular Weight of ATP5I: 8 kDa.

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) 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.

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.