SANTA CRUZ BIOTECHNOLOGY, INC.

ATP11C (S-14): sc-169974



The Power to Question

BACKGROUND

ATP11C (ATPase, class VI, type 11C), also known as ATPIG or ATPIQ, is a 1,132 amino acid multi-pass membrane protein that belongs to the cation transport ATPase (P-type) family and the type IV subfamily. Widely expressed, ATP11C exists as 4 alternatively spliced isoforms and contains 31 exons, including the alternate first exons 1a and 1b. ATP11C is conserved in canine, mouse, chicken and zebrafish, with human and mouse ATP11C sharing 94.8% amino acid identity. ATP11C participates in both ATP and magnesium ion binding, as well as phospholipid-translocating ATPase activity. ATP11C is phosphorylated upon DNA damage, likely by Atm or ATR. The gene that encodes ATP11C maps to human chromosome Xq27.1.

REFERENCES

- 1. Halleck, M.S., et al. 2002. Reanalysis of ATP11B, a type IV P-type ATPase. J. Biol. Chem. 277: 9736-9740.
- Andrew Nesbit, M., et al. 2004. X-linked hypoparathyroidism region on Xq27 is evolutionarily conserved with regions on 3q26 and 13q34 and contains a novel P-type ATPase. Genomics 84: 1060-1070.
- Bowl, M.R., et al. 2005. An interstitial deletion-insertion involving chromosomes 2p25.3 and Xq27.1, near SOX3, causes X-linked recessive hypoparathyroidism. J. Clin. Invest. 115: 2822-2831.
- 4. Huttner, I.G., et al. 2006. Proof of genetic heterogeneity in X-linked Charcot-Marie-Tooth disease. Neurology 67: 2016-2021.
- Solomon, N.M., et al. 2007. Array comparative genomic hybridisation analysis of boys with X-linked hypopituitarism identifies a 3.9 Mb duplicated critical region at Xq27 containing SOX3. J. Med. Genet. 44: e75.
- 6. Ahituv, N., et al. 2007. Deletion of ultraconserved elements yields viable mice. PLoS Biol. 5: e234.
- Yamamoto, M.L., et al. 2009. Alternative pre-mRNA splicing switches modulate gene expression in late erythropoiesis. Blood 113: 3363-3370.
- 8. Navratilova, P., et al. 2009. Systematic human/zebrafish comparative identification of *cis*-regulatory activity around vertebrate developmental transcription factor genes. Dev. Biol. 327: 526-540.

CHROMOSOMAL LOCATION

Genetic locus: ATP11C (human) mapping to Xq27.1; Atp11c (mouse) mapping to X A6.

SOURCE

ATP11C (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of ATP11C of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-169974 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATP11C (S-14) is recommended for detection of ATP11C 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 ATP11 family members.

ATP11C (S-14) is also recommended for detection of ATP11C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ATP11C siRNA (h): sc-90870, ATP11C siRNA (m): sc-141337, ATP11C shRNA Plasmid (h): sc-90870-SH, ATP11C shRNA Plasmid (m): sc-141337-SH, ATP11C shRNA (h) Lentiviral Particles: sc-90870-V and ATP11C shRNA (m) Lentiviral Particles: sc-141337-V.

Molecular Weight of ATP11C isoforms 1/2/3/4: 129/127/128/129 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) Immunofluo-rescence: 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.

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.

PROTOCOLS

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