SANTA CRUZ BIOTECHNOLOGY, INC.

ATP11C (E-14): sc-169975



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 four alternatively spliced isoforms and contains thirty-one exons, including the alternate first exons 1a and 1b. ATP11C is conserved in dog, 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.
- 2. 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.
- 3. 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.
- 5. 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.
- 7. 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 (E-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 μ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169975 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

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

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) 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.

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.