SANTA CRUZ BIOTECHNOLOGY, INC.

YME1L1 (N-18): sc-139302

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The Power to Question

BACKGROUND

YME1L1 (YME1-like 1 *(S. cerevisiae)*), also known as ATP-dependent zinc metalloprotease YME1L1, PAMP (presenilin-associated metalloprotease), MEG4 or FTSH, is a 773 amino acid mitochondrial protein that belongs to the AAA ATPase and peptidase M41 families. Thought to function as an ATP-dependent protease, YME1L1 plays a role in mitochondrial protein metabolism and assists in OPA1 (optic atrophy 1) processing. YME1L1 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 10p12.1. Chromosome 10 contains over 800 genes, 135 million nucleotides, and comprises nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome.

REFERENCES

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2. Coppola, M., et al. 2000. Identification and characterization of YME1L1, a novel paraplegin-related gene. Genomics 66: 48-54.
3. Pellegrini, L., et al. 2001. PAMP and PARL, two novel putative metalloproteases interacting with the COOH-terminus of Presenilin-1 and -2. J. Alzheimers Dis. 3: 181-190.
4. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. Am. J. Hum. Genet. 81: 756-767.
5. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. Am. J. Surg. Pathol. 32: 1258-1264.
6. Guillery, O., et al. 2008. Metalloprotease-mediated OPA1 processing is modulated by the mitochondrial membrane potential. Biol. Cell. 100: 315-325.
7. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.

CHROMOSOMAL LOCATION

Genetic locus: YME1L1 (human) mapping to 10p12.1.

SOURCE

YME1L1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of YME1L1 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-139302 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

YME1L1 (N-18) is recommended for detection of YME1L1 of 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).

YME1L1 (N-18) is also recommended for detection of YME1L1 in additional species, including porcine.

Suitable for use as control antibody for YME1L1 siRNA (h): sc-90696, YME1L1 shRNA Plasmid (h): sc-90696-SH and YME1L1 shRNA (h) Lentiviral Particles: sc-90696-V.

Molecular Weight of YME1L1 isoforms: 86/80 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.