# SANTA CRUZ BIOTECHNOLOGY, INC.

# PET112L (P-18): sc-82018



# BACKGROUND

PET112L is the human homolog of the *S. cerevisiae* COX assembly protein PET112, a protein that is believed to play an important role in the translation of mitochondrial genes. PET112L, also known as HSPC199 or Glu-ADT subunit B (glutamyl-tRNA(Gln) amidotransferase subunit B), is a 557 amino acid protein belonging to the gatB/gatE family of proteins (GatB subfamily) and is believed to play a role in energy metabolism. Localizing to mitochondria, PET112L is expressed in tissues such as heart and muscle, which exhibit high rates of oxidative phosphorylation. The gene encoding PET112L is overexpressed in recurrent ependymoma.

#### REFERENCES

- Mulero, J.J., Rosenthal, J.K. and Fox, T.D. 1994. PET112, a Saccharomyces cerevisiae nuclear gene required to maintain Rho<sup>+</sup> mitochondrial DNA. Curr. Genet. 25: 299-304.
- 2. Obermaier, B., Gassenhuber, J., Piravandi, E. and Domdey, H. 1995. Sequence analysis of a 78.6 kb segment of the left end of *Saccharomyces cerevisiae* chromosome II. Yeast 11: 1103-1112.
- Kim, S.I., Stange-Thomann, N., Martins, O., Hong, K.W., Söll, D. and Fox, T.D. 1997. A nuclear genetic lesion affecting *Saccharomyces cerevisiae* mitochondrial translation is complemented by a homologous *Bacillus* gene. J. Bacteriol. 179: 5625-5627.
- Petruzzella, V., Tiranti, V., Fernandez, P., Ianna, P., Carrozzo, R. and Zeviani, M. 1998. Identification and characterization of human cDNAs specific to BCS1, PET112, SC01, COX15, and COX11, five genes involved in the formation and function of the mitochondrial respiratory chain. Genomics 54: 494-504.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603645. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Lallier, T.E., Spencer, A. and Fowler, M.M. 2005. Transcript profiling of periodontal fibroblasts and osteoblasts. J. Periodontol. 76: 1044-1055.

#### CHROMOSOMAL LOCATION

Genetic locus: PET112L (human) mapping to 4q31.3; Pet112I (mouse) mapping to 3 F1.

#### SOURCE

PET112L (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PET112L of human origin.

# PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82018 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82018 X, 200  $\mu$ g/0.1 ml.

# APPLICATIONS

PET112L (P-18) is recommended for detection of PET112L 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).

PET112L (P-18) is also recommended for detection of PET112L in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for PET112L siRNA (h): sc-76108, PET112L siRNA (m): sc-76109, PET112L shRNA Plasmid (h): sc-76108-SH, PET112L shRNA Plasmid (m): sc-76109-SH, PET112L shRNA (h) Lentiviral Particles: sc-76108-V and PET112L shRNA (m) Lentiviral Particles: sc-76109-V.

PET112L (P-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

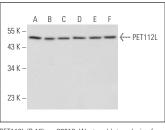
Molecular Weight of PET112L: 58 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

## **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-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PET112L (P-18): sc-82018. Western blot analysis of PET112L expression in HeLa (A), U-251-MG (B), Hep G2 (C), NCI-H460 (D), Jurkat (E) and K-562 (F) whole cell lysates.

#### **STORAGE**

Store at 4° C, \*\*D0 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.