## BACKGROUND

PNMA6A (paraneoplastic antigen like 6A), also known as MA6 or PNMA6, is a 399 amino acid protein belonging to the putative gene family PNMA, which consists of six genes known as PNMA1, PNMA2, PNMA3, PNMA4, PNMA5 and PNMA6. Separated by approximately 12 kb , PNMA6A is located next to PNMA3. The gene that encodes PNMA6A maps to human chromosome Xq28. PNMA6B (paraneoplastic antigen like 6B) is a 399 amino acid protein that also belongs to the PNMA family. Separated by 0.6 kb from the PNMA6A gene, PNMA6B is positioned in the reverse orientation of PNMA6A and shares $99.2 \%$ amino acid identity. The gene that encodes PNMA6B also maps to human chromosome Xq28. Chromosome X consists of nearly 153 million base pairs encoding approximately 1,000 genes.

## REFERENCES

1. Hillebrand, G., Illner, W.D., Abendroth, D., Schneeberger, H., Petry, I., Schleibner, S., Landgraf, R. and Land, W. 1991. Outcome of renal grafts after simultaneous kidney/pancreas transplantation. Diabetologia 34 Supp11: S16-S17.
2. Bernardino-Sgherri, J., Flagiello, D. and Dutrillaux, B. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
3. Schüller, M., Jenne, D. and Voltz, R. 2005. The human PNMA family: novel neuronal proteins implicated in paraneoplastic neurological disease. J. Neuroimmunol. 169: 172-176.
4. Wills, N.M., Moore, B., Hammer, A., Gesteland, R.F. and Atkins, J.F. 2006. A functional -1 ribosomal frameshift signal in the human paraneoplastic Ma3 gene. J. Biol. Chem. 281: 7082-7088.
5. Moran, L.B. and Graeber, M.B. 2008. Towards a pathway definition of Parkinson's disease: a complex disorder with links to cancer, diabetes and inflammation. Neurogenetics 9: 1-13.
6. Takaji, M., Komatsu, Y., Watakabe, A., Hashikawa, T. and Yamamori, T. 2009. Paraneoplastic antigen-like 5 gene (PNMA5) is preferentially expressed in the association areas in a primate specific manner. Cereb. Cortex 19: 2865-2879.
7. Chen, H.L. and D'Mello, S.R. 2010. Induction of neuronal cell death by paraneoplastic Ma1 antigen. J. Neurosci. Res. 88: 3508-3519.

## CHROMOSOMAL LOCATION

Genetic locus: PNMA6A/PNMA6B (human) mapping to Xq28.

## SOURCE

PNMA6A/B (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PNMA6A of human origin.

## STORAGE

Store at $4^{\circ} \mathrm{C},{ }^{* *}$ DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

Each vial contains $200 \mu \mathrm{gg} \lg$ in 1.0 ml of PBS with < $0.1 \%$ sodium azide and $0.1 \%$ gelatin.
Blocking peptide available for competition studies, sc-168983 P, ( $100 \mu \mathrm{~g}$ peptide in 0.5 ml PBS containing $<0.1 \%$ sodium azide and $0.2 \% \mathrm{BSA}$ ).

## APPLICATIONS

PNMA6A/B ( $T-14$ ) is recommended for detection of PNMA6A and PNMA6B of human origin 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).
Molecular Weight of PNMA6A/B: 44 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 MarkerTM ${ }^{\text {TM }}$ 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: 1:1001:400) 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.

