SANTA CRUZ BIOTECHNOLOGY, INC.

PCDHA12 (h): 293T Lysate: sc-372779



The Power to Question

BACKGROUND

Protocadherins are a large family of cadherin-like cell adhesion proteins that are involved in the establishment and maintenance of neuronal connections in the brain. There are three protocadherin (PCDH) gene clusters, designated α , β and γ , all of which contain multiple tandemly arranged genes. The protein products of PCDH- α genes interact with Integrin β 1 to promote cell adhesion and form oligomers with PCDH-y proteins at specific membrane sites. PCDHA12 (protocadherin α -12) is a 941 amino acid single-pass transmembrane protein that contains 6 cadherin domains and functions as a potential calcium-dependent cell-adhesion protein, possibly playing a role in the creation and maintenance of neuronal connections. There are two isoforms of PCDHA12 that are produced as a result of alternative splicing events.

REFERENCES

- 1. Wu, Q. and Maniatis, T. 1999. A striking organization of a large family of human neural cadherin-like cell adhesion genes. Cell 97: 779-790.
- 2. Tasic, B., Nabholz, C.E., Baldwin, K.K., Kim, Y., Rueckert, E.H., Ribich, S.A., Cramer, P., Wu, Q., Axel, R. and Maniatis, T. 2002. Promoter choice determines splice site selection in protocadherin α and γ pre-mRNA splicing Mol. Cell 10: 21-33.
- 3. Hirayama, T. and Yagi, T. 2006. The role and expression of the protocadherin- α clusters in the CNS. Curr. Opin. Neurobiol. 16: 336-342.
- 4. Kaneko, R., Kato, H., Kawamura, Y., Esumi, S., Hirayama, T., Hirabayashi, T. and Yaqi, T. 2006. Allelic gene regulation of Pcdh- α and Pcdh- γ clusters involving both monoallelic and biallelic expression in single Purkinje cells. J. Biol. Chem. 281: 30551-30560.
- 5 Ribich, S., Tasic., B. and Maniatis, T. 2006. Identification of long-range regulatory elements in the protocadherin- α gene cluster. Proc. Natl. Acad. Sci. USA 103: 19719-19724.
- 6. Bonn, S., Seeburg, P.H. and Schwarz, M.K. 2007. Combinatorial expression of α - and γ -protocadherins alters their presentilin-dependent processing. Mol. Cell. Biol. 27: 4121-4132.
- 7. Yagi, T. 2008. Clustered protocadherin family. Dev. Growth Differ. 50: S131-S140.
- 8. Kawaguchi, M., Toyama, T., Kaneko, R., Hirayama, T., Kawamura, Y. and Yagi, T. 2008. Relationship between DNA methylation states and transcription of individual isoforms encoded by the protocadherin- α gene cluster. J. Biol. Chem. 283: 12064-12075.

CHROMOSOMAL LOCATION

Genetic locus: PCDHA12 (human) mapping to 5q31.3.

PRODUCT

PCDHA12 (h): 293T Lysate represents a lysate of human PCDHA12 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

PCDHA12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PCDHA12 antibodies. Recommended use: 10-20 µl

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 +00800 4573 8000 49 6221 4503 0 www.scht.com Europe