



mPR δ (h): 293T Lysate: sc-115979

BACKGROUND

mPR δ , also known as PAQR6 (progesterone and adipoQ receptor family member 6), is a 344 amino acid multi-pass membrane protein that is expressed as four alternatively spliced isoforms and is thought to function as a membrane receptor. The gene encoding mPR δ maps to chromosome 1q22, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 encodes a large number of disease-associated proteins, including Lamin A which, when expressed abnormally, can build up in the nucleus and cause nuclear blebs, a characteristic of the rare aging disease Hutchinson-Gilford progeria. Additionally, genes that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinsons Disease, Gaucher disease, schizophrenia and Usher syndrome are all located on chromosome 1. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Watson, M.L., Kingsmore, S.F., Johnston, G.I., Siegelman, M.H., Le Beau, M.M., Lemons, R.S., Bora, N.S., Howard, T.A., Weissman, I.L., McEver, R.P., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., Fordyce, A., Walker, M.T., St Clair, D.M., Porteous, D.J. and Muir, W.J. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433
3. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Tang, Y.T., Hu, T., Arterburn, M., Boyle, B., Bright, J.M., Emtage, P.C. and Funk, W.D. 2005. PAQR proteins: a novel membrane receptor family defined by an ancient 7-transmembrane pass motif. *J. Mol. Evol.* 61: 372-380.
5. Gregory, S.G., Barlow, K.F., McLay, K.E., Kaul, R., Swarbreck, D., Dunham, A., Scott, C.E., Howe, K.L., Woodfine, K.C., Spencer, C.A., Jones, M.C., Gillson, C., Searle, S., Zhou, Y., Kokocinski, F., McDonald, L. et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Hennah, W., Thomson, P., Peltonen, L. and Porteous, D. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. *Schizophr. Bull.* 32: 409-416.
7. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.
8. Marzin, Y., Jamet, D., Douet-Guilbert, N., Morel, F., Le Bris, M.J., Morice, P., Abgrall, J.F., Berthou, C. and De Braekeleer, M. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: PAQR6 (human) mapping to 1q22.

PRODUCT

mPR δ (h): 293T Lysate represents a lysate of human mPR δ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

mPR δ (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PAQR6 antibodies. Recommended use: 10-20 μ l per lane.

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

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.

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.