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SANTA CRUZ BIOTECHNOLOGY, INC.

PERQ1 siRNA (m): sc-152176

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PERQ1, also known as PERQ amino acid-rich with GYF domain-containing protein 1, GIGYF1 (GRB10 interacting GYF protein 1), GYF1 (GYF domain containing 1), GRB10-interacting GYF protein 1 or postmeiotic segregation increased 2-like 12, is a 1,035 amino acid phosphoprotein that contains one GYF domain and belongs to the PERQ family. Ubiquitously expressed, PERQ1 exhibits highest expression in brain and lung, followed by heart, spleen and kidney. PERQ1 contains a GYF domain in its N-terminal half and a clathrin light chain homology domain in its C-terminal half. PERQ1 interacts with GRB10, with transient binding increased under IGF-I stimulation, thereby leading to recruitment of the PERQ1/GRB10 complex to the IGF-I receptor. PERQ1 may also increase IRS-1, Shc and IGF-I receptor phosphorylation during IGF-I stimulation, and may act cooperatively with GRB10 to regulate tyrosine kinase receptor signaling.

REFERENCES

1. Wilson, M.D., Riemer, C., Martindale, D.W., Schnupf, P., Boright, A.P., Cheung, T.L., Hardy, D.M., Schwartz, S., Scherer, S.W., Tsui, L.C., Miller, W. and Koop, B.F. 2001. Comparative analysis of the gene-dense ACHE/TFR2 region on human chromosome 7q22 with the orthologous region on mouse chromosome 5. Nucleic Acids Res. 29: 1352-1365.
2. Giovannone, B., Lee, E., Laviola, L., Giorgino, F., Cleveland, K.A. and Smith, R.J. 2003. Two novel proteins that are linked to Insulin-like growth factor (IGF-I) receptors by the Grb10 adapter and modulate IGF-I signaling. J. Biol. Chem. 278: 31564-31573.
3. Lim, M.A., Riedel, H. and Liu, F. 2004. Grb10: more than a simple adaptor protein. Front. Biosci. 9: 387-403.
4. Riedel, H. 2004. Grb10 exceeding the boundaries of a common signaling adapter. Front. Biosci. 9: 603-618.
5. Dufresne, A.M. and Smith, R.J. 2005. The adapter protein GRB10 is an endogenous negative regulator of Insulin-like growth factor signaling. Endocrinology 146: 4399-4409.
6. Lautier, C., Goldwurm, S., Dürr, A., Giovannone, B., Tsiaras, W.G., Pezzoli, G., Brice, A. and Smith, R.J. 2008. Mutations in the GIGYF2 (TNRC15) gene at the PARK11 locus in familial Parkinson disease. Am. J. Hum. Genet. 82: 822-833.
7. Giovannone, B., Tsiaras, W.G., de la Monte, S., Klysik, J., Lautier, C., Karashchuk, G., Goldwurm, S. and Smith, R.J. 2009. GIGYF2 gene disruption in mice results in neurodegeneration and altered Insulin-like growth factor signaling. Hum. Mol. Genet. 18: 4629-4639.
8. Ajiro, M., Katagiri, T., Ueda, K., Nakagawa, H., Fukukawa, C., Lin, M.L., Park, J.H., Nishidate, T., Daigo, Y. and Nakamura, Y. 2009. Involvement of RQCD1 overexpression, a novel cancer-testis antigen, in the Akt pathway in breast cancer cells. Int. J. Oncol. 35: 673-681.
9. Ajiro, M., Nishidate, T., Katagiri, T. and Nakamura, Y. 2010. Critical involvement of RQCD1 in the EGFR-Akt pathway in mammary carcinogenesis. Int. J. Oncol. 37: 1085-1093.

CHROMOSOMAL LOCATION

Genetic locus: Gigyf1 (mouse) mapping to 5 G2.

PRODUCT

PERQ1 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PERQ1 shRNA Plasmid (m): sc-152176-SH and PERQ1 shRNA (m) Lentiviral Particles: sc-152176-V as alternate gene silencing products.

For independent verification of PERQ1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152176A, sc-152176B and sc-152176C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PERQ1 siRNA (m) is recommended for the inhibition of PERQ1 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PERQ1 gene expression knockdown using RT-PCR Primer: PERQ1 (m)-PR: sc-152176-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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