SANTA CRUZ BIOTECHNOLOGY, INC.

GPR115 siRNA (h): sc-95566

BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein-coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR115 (G protein-coupled receptor 115), also known as G protein-coupled receptor PGR18, is a 695 amino acid multi-pass membrane protein belonging to the G protein-coupled receptor 2 family and LN-TM7 subfamily. GPR115 functions as an orphan receptor, contains one GPS domain and is encoded by a gene located on human chromosome 6.

REFERENCES

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5. Haitina, T., Olsson, F., Stephansson, O., Alsiö, J., Roman, E., Ebendal, T., Schiöth, H.B. and Fredriksson, R. 2008. Expression profile of the entire family of adhesion G protein-coupled receptors in mouse and rat. BMC Neurosci. 9: 43.
6. Yona, S., Lin, H.H., Siu, W.O., Gordon, S. and Stacey, M. 2008. Adhesion-GPCRs: emerging roles for novel receptors. Trends Biochem. Sci. 33: 491-500.

CHROMOSOMAL LOCATION

Genetic locus: ADGRF4 (human) mapping to 6p12.3.

PRODUCT

GPR115 siRNA (h) 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 GPR115 shRNA Plasmid (h): sc-95566-SH and GPR115 shRNA (h) Lentiviral Particles: sc-95566-V as alternate gene silencing products.

For independent verification of GPR115 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-95566A, sc-95566B and sc-95566C.

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

GPR115 siRNA (h) is recommended for the inhibition of GPR115 expression in human 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 GPR115 gene expression knockdown using RT-PCR Primer: GPR115 (h)-PR: sc-95566-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.

PROTOCOLS

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