SANTA CRUZ BIOTECHNOLOGY, INC.

GPR150 siRNA (m): sc-60742

BACKGROUND

G protein-coupled receptors (GPCRs), also designated seven transmembrane (7TM) receptors and heptahelical receptors, are a protein family which interact with G proteins (heterotrimeric GTPases) to synthesize intracellular second messengers such as diacylglycerol, cyclic AMP, inositol phosphates, and calcium ions. Their diverse biological functions range from vision and olfaction to neuronal and endocrine signaling and are involved in many pathological conditions. G protein receptor 150 (GPR150), also designated PGR11 and seven transmembrane helix receptor, is a member of the rhodopsin family of GCPRs and is involved in signal transduction. GPR150 is expressed in various human tissues, including normal small intestine, skeletal muscle, kidney and tonsil, as well as cancerous blood, bladder, placenta and parathyroid.

REFERENCES

1. Lameh, J., et al. 1991. Structure and function of G protein-coupled receptors. Pharm. Res. 7: 1213-1221.
2. Probst, W.C., et al. 1992. Sequence alignment of the G protein-coupled receptor superfamily. DNA Cell Biol. 11: 1-20.
3. Vassilatis, D.K., et al. 2003. The G protein-coupled receptor repertoires of human and mouse. Proc. Natl. Acad. Sci. USA 100: 4903-4908.
4. Gloriam, D.E., et al. 2005. Nine new human rhodopsin family G protein-coupled receptors: identification, sequence characterisation and evolutionary relationship. Biochim. Biophys. Acta 1722: 235-246.

CHROMOSOMAL LOCATION

Genetic locus: Gpr150 (mouse) mapping to 13 C1.

PRODUCT

GPR150 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 GPR150 shRNA Plasmid (m): sc-60742-SH and GPR150 shRNA (m) Lentiviral Particles: sc-60742-V as alternate gene silencing products.

For independent verification of GPR150 (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-60742A, sc-60742B and sc-60742C.

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.

RESEARCH USE

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

APPLICATIONS

GPR150 siRNA (m) is recommended for the inhibition of GPR150 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 GPR150 gene expression knockdown using RT-PCR Primer: GPR150 (m)-PR: sc-60742-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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