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FKSG80 shRNA (h) Lentiviral Particles: sc-44643-V

BACKGROUND

G protein-coupled receptor 81 (FKSG80) belongs to the G protein-coupled receptor 1 family. It is an integral membrane protein which functions as an orphan receptor. The gene encoding the FKSG80 protein, GPR81, maps to chromosome 12q24.31 in humans. The FKSG80 protein is a 347 amino acid protein that shares 70% homology to the chemokine receptor HM74. FKSG80 is expressed mainly in pituitary, but can also be detected in adipose tissue. It is not found in hippocampus, basal forebrain, frontal, temporal and occipital lobes of the cortex, caudate nucleus or nucleus accumbens.

REFERENCES

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- <http://harvester.embl.de/harvester/Q9BX/Q9BXC0.htm>

CHROMOSOMAL LOCATION

Genetic locus: HCAR1 (human) mapping to 12q24.31.

PRODUCT

FKSG80 shRNA (h) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 µl frozen stock containing 1.0×10^6 infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see FKSG80 siRNA (h): sc-44643 and FKSG80 shRNA Plasmid (h): sc-44643-SH as alternate gene silencing products.

STORAGE

Store lentiviral particles at -80° C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4° C for up to one week. Avoid repeated freeze thaw cycles.

PROTOCOLS

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

APPLICATIONS

FKSG80 shRNA (h) Lentiviral Particles is recommended for the inhibition of FKSG80 expression in human cells.

SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 µl frozen viral stock containing 1.0×10^6 infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

GENE EXPRESSION MONITORING

FKSG80 (T-16): sc-32647 is recommended as a control antibody for monitoring of FKSG80 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FKSG80 gene expression knockdown using RT-PCR Primer: FKSG80 (h)-PR: sc-44643-PR (20 µl). Annealing temperature for the primers should be $55-60^{\circ}$ C and the extension temperature should be $68-72^{\circ}$ C.

BIOSAFETY

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

RESEARCH USE

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.