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ES shRNA (h) Lentiviral Particles: sc-45269-V

BACKGROUND

Estrone sulfatase (ES) is an enzymatic homodimer associated with the endoplasmic reticulum membrane, stimulated by retinoids and responsible for the conversion of sulfated steroid precursors into bioactive estrogens during pregnancy. Many studies have reported on the effects of reversible and irreversible ES activity inhibition from a wide array of molecules, though little is known about the regulation of ES expression or activity. Mutations in the ES gene result in X-linked ichthyosis, a diskeratinization disorder characterized by the presence of prominent scales. High expression levels have been reported in human breast carcinoma and acute promyelocytic leukemia, as ES supports tumor growth. Therefore, ES is currently a potential drug target in the treatment of estrogen- and androgen-dependent diseases.

REFERENCES

- Rodig, H., et al. 2002. Distribution of estrone sulfatase in rat brain determined by *in vitro* autoradiography with 16α -[^{18}F]fluoroestradiol-3,17 β -disulfamate. *Appl. Radiat. Isot.* 56: 773-780.
- Hernandez-Guzman, F.G., et al. 2003. Structure of human estrone sulfatase suggests functional roles of membrane association. *J. Biol. Chem.* 278: 22989-22997.
- Walter, G., et al. 2004. 2-phenylindole sulfamates: inhibitors of steroid sulfatase with antiproliferative activity in MCF7 breast cancer cells. *J. Steroid Biochem. Mol. Biol.* 88: 409-420.
- Utsunomiya, H., et al. 2004. Steroid sulfatase and estrogen sulfotransferase in human endometrial carcinoma. *Clin. Cancer Res.* 10: 5850-5856.
- Billich, A., et al. 2004. Confocal fluorescence detection expanded to UV excitation: the first continuous fluorimetric assay of human steroid sulfatase in nanoliter volume. *Assay. Drug Dev. Technol.* 2: 21-30.

CHROMOSOMAL LOCATION

Genetic locus: STS (human) mapping to Xp22.31.

PRODUCT

ES 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 ES siRNA (h): sc-45269 and ES shRNA Plasmid (h): sc-45269-SH as alternate gene silencing products.

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.

APPLICATIONS

ES shRNA (h) Lentiviral Particles is recommended for the inhibition of ES 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

ES (Y-20): sc-33498 is recommended as a control antibody for monitoring of ES 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 ES gene expression knockdown using RT-PCR Primer: ES (h)-PR: sc-45269-PR (20 μl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° 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.

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.