ENPP5 shRNA (h) Lentiviral Particles:
sc-95411-V

BACKGROUND
ENPP5 (ectonucleotide pyrophosphatase/phosphodiesterase family member 5), also known as NPP-5, is a 477 amino acid protein that belongs to the nucleotide pyrophosphatase/phosphodiesterase family. Thought to be both a secreted protein and a single-pass membrane protein, ENPP5 may be involved in neuronal cell communication. ENPP5 has been found to be N-glycosylated and lacks nucleotide pyrophosphatase and lyso phospholipase D activity. The gene that encodes ENPP5 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

CHROMOSOMAL LOCATION

PRODUCT
ENPP5 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 x 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 ENPP5 siRNA (h); sc-95411 and ENPP5 shRNA Plasmid (h); sc-95411-SH as alternate gene silencing products.

APPLICATIONS
ENPP5 shRNA (h) Lentiviral Particles is recommended for the inhibition of ENPP5 expression in human cells.

SUPPORT REAGENTS
Control shRNA Lentiviral Particles: sc-108080. Available as 200 µl frozen viral stock containing 1.0 x 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.

RT-PCR REAGENTS
Semi-quantitative RT-PCR may be performed to monitor ENPP5 gene expression knockdown using RT-PCR Primer: ENPP5 (h)-PR: sc-95411-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.

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.