

PAPD5 shRNA (m) Lentiviral Particles: sc-152015-V

BACKGROUND

PAPD5 (PAP associated domain containing 5), also known as TRF4-2 (topoisomerase-related function protein 4-2), is a 572 amino acid protein that localizes to the nucleus and belongs to the DNA polymerase type B-like family. Expressed as multiple alternatively spliced isoforms, PAPD5 functions as a DNA polymerase that is thought to be involved in both DNA repair and sister chromatid cohesion. The gene encoding PAPD5 maps to human chromosome 16q12.1, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Papd5 (mouse) mapping to 8 C3.

PRODUCT

PAPD5 shRNA (m) 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 μ l 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 PAPD5 siRNA (m): sc-152015 and PAPD5 shRNA Plasmid (m): sc-152015-SH as alternate gene silencing products.

APPLICATIONS

PAPD5 shRNA (m) Lentiviral Particles is recommended for the inhibition of PAPD5 expression in mouse cells.

SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 μ l 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PAPD5 gene expression knockdown using RT-PCR Primer: PAPD5 (m)-PR: sc-152015-PR (20 μ l). 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.