SANTA CRUZ BIOTECHNOLOGY, INC.

pierce 1 siRNA (h): sc-92661

BACKGROUND

Pierce 1, also known as UPF0691 protein C9orf116, is a 136 amino acid protein that belongs to the UPF0691 family. Pierce 1 exists as two alternatively spliced isoforms, which are conserved in chimpanzee, dog, cow, mouse and rat. Pierce 1 is predominantly expressed in micrometastases and macrometastases of human small cell lung cancer. Pierce 1 is encoded by a gene that maps to chromosome 9q34.3, which consists of about 145 million bases, makes up 4% of the human genome and encodes nearly 900 genes. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, is associated with chromosome 9.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: C9orf116 (human) mapping to 9q34.3.

PROTOCOLS

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

PRODUCT

pierce 1 siRNA (h) 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 pierce 1 shRNA Plasmid (h): sc-92661-SH and pierce 1 shRNA (h) Lentiviral Particles: sc-92661-V as alternate gene silencing products.

For independent verification of pierce 1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-92661A, sc-92661B and sc-92661C.

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.

APPLICATIONS

pierce 1 siRNA (h) is recommended for the inhibition of pierce 1 expression in human 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 pierce 1 gene expression knockdown using RT-PCR Primer: pierce 1 (h)-PR: sc-92661-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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