

## Produktinformation



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# CD7 shRNA (m) Lentiviral Particles: sc-44658-V



The Power to Overtion

#### **BACKGROUND**

CD7 is a type I transmembrane glycoprotein that is expressed on pluripotential hemapoietic cells, most human thymocytes and some peripheral blood T cells. CD7 is a marker for pluripotential stem cell leukemias and T cell acute lymphocytic leukemia. A role for CD7 in the activation of T cells with  $\gamma/\delta$  receptors has been suggested. CD8 T cells from patients infected with HIV-1 displayed profound down-modulation of CD7 expression as compared with healthy subjects. CD7 is among the pan-T-cell antigens down-regulated in acute infectious mononucleosis.

#### REFERENCES

- Haynes, B.F., et al. 1989. Ontogeny of T-cell precursors: a model for the initial stages of human T-cell development. Immunol. Today 10: 87-91.
- Barcena, A., et al. 1995. Tracing the expression of CD7 and other antigens during T- and myeloid-cell differentiation in the human fetal liver and thymus. Leuk. Lymphoma 17: 1-11.
- Schanberg, L.E., et al. 1995. Characterization of human CD7 transgenic mice. J. Immunol. 155: 2407-2418.
- Leta, E., et al. 1995. Production and characterization of the extracellular domain of human CD7 antigen: further evidence that CD7 has a role in T cell signaling. Cell. Immunol. 165: 101-109.
- Ward, S.G., et al. 1995. Antibody ligation of CD7 leads to association with phosphoinositide 3-kinase and phosphatidylinositol 3,4,5-triphosphate formation in T lymphocytes. Euro. J. Immunol. 25: 502-507.
- Weisberger, J., et al. 2003. Down-regulation of pan-T-cell antigens, particularly CD7, in acute infectious mononucleosis. Am. J. Clin. Pathol. 120: 49-55.

#### **CHROMOSOMAL LOCATION**

Genetic locus: Cd7 (mouse) mapping to 11 E2.

#### **PRODUCT**

CD7 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 µl frozen stock containing 1.0 x 10<sup>6</sup> 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 CD7 siRNA (m): sc-44658 and CD7 shRNA Plasmid (m): sc-44658-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**

CD7 shRNA (m) Lentiviral Particles is recommended for the inhibition of CD7 expression in mouse cells.

#### **SUPPORT REAGENTS**

Control shRNA Lentiviral Particles: sc-108080. Available as 200  $\mu$ l 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 CD7 gene expression knockdown using RT-PCR Primer: CD7 (m)-PR: sc-44658-PR (20  $\mu$ I). 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  $-80^{\circ}$  C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at  $4^{\circ}$  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.

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