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## Produktinformation



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- Trockeneiszuschlag
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- Expressversand

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# p150 shRNA (h) Lentiviral Particles: sc-43986-V

## BACKGROUND

Accurate sorting and delivery of proteins to the proper organelles is essential for normal cellular functioning. The yeast Vps proteins are involved in sorting and delivering vacuolar proteins from the Golgi network, where they undergo posttranslational modification, to the vacuole. Vps34p, a key component of this protein trafficking system, shares homology with proteins in the PI 3-kinase family and is regulated by Vps15p. Vps15p is thought to recruit Vps34p to the membrane of the Golgi complex and to enhance Vps34p kinase activity. p150 is the human homolog of the yeast Vps15p and is ubiquitously expressed. p150, like Vps15p, is subject to posttranslational modification, including myristylation.

## REFERENCES

1. Rothman, J.H., Yamashiro, C.T., Kane, P.M. and Stevens, T.H. 1989. Protein targeting to the yeast vacuole. *Trends Biochem. Sci.* 14: 347-350.
2. Stack, J.H. and Emr, S.D. 1994. Vps34p required for yeast vacuolar protein sorting is a multiple specificity kinase that exhibits both protein kinase and phosphatidylinositol-specific PI 3-kinase activities. *J. Biol. Chem.* 269: 31552-31562.
3. Stack, J.H., Horazdovsky, B. and Emr, S.D. 1995. Receptor-mediated protein sorting to the vacuole in yeast: roles for a protein kinase, a lipid kinase and GTP-binding proteins. *Annu. Rev. Cell Dev. Biol.* 11: 1-33.
4. Stack, J.H., DeWald, D.B., Takegawa, K. and Emr, S.D. 1995. Vesicle-mediated protein transport: regulatory interactions between the Vps15 protein kinase and the Vps34 PtdIns 3-kinase essential for protein sorting to the vacuole in yeast. *J. Cell Biol.* 129: 321-334.
5. Volinia, S., Dhand, R., Vanhaesebroeck, B., MacDougall, L.K., Stein, R., Zvelebil, M.J., Domin, J., Panaretou, C. and Waterfield, M.D. 1995. A human phosphatidylinositol 3-kinase complex related to the yeast Vps34p-Vps15p protein sorting system. *EMBO J.* 14: 3339-3348.

## CHROMOSOMAL LOCATION

Genetic locus: PIK3R4 (human) mapping to 3q22.1.

## PRODUCT

p150 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  $\mu$ l frozen stock containing  $1.0 \times 10^6$  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 p150 siRNA (h): sc-43986 and p150 shRNA Plasmid (h): sc-43986-SH as alternate gene silencing products.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

p150 shRNA (h) Lentiviral Particles is recommended for the inhibition of p150 expression in human cells.

## SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200  $\mu$ l frozen viral stock containing  $1.0 \times 10^6$  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

p150 (C-20): sc-8218 is recommended as a control antibody for monitoring of p150 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 p150 gene expression knockdown using RT-PCR Primer: p150 (h)-PR: sc-43986-PR (20  $\mu$ 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.