

## Produktinformation



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# COPA shRNA (h) Lentiviral Particles: sc-43696-V



The Power to Overtion

#### **BACKGROUND**

COPA ( $\alpha$ -coat protein) is processed to produce Xenin. Xenin stimulates exocrine pancreatic secretion to affect small and large intestinal motility, and inhibits pentagastrin-stimulated secretion of acid. In the gut, Xenin interacts with the neurotensin receptor. Membrane and vesicular trafficking in the early secretory pathway are mediated by non-Clathrin COP (coat protein) I-coated vesicles. COPI-coated vesicles mediate retrograde transport from the Golgi back to the ER and intra-Golgi transport. The cytosolic precursor of the COPI coat, the heptameric coatomer complex, is composed of two subcomplexes. The first consists of the COPB, COPG, COPD and COPZ subunits (also known as  $\beta$ -,  $\gamma$ -,  $\delta$ - and  $\zeta$ -COP, respectively), which are distantly homologous to AP Clathrin adaptor subunits. The second consists of the COPA,  $\beta$ '-COP and COPE subunits (also known as  $\alpha$ -COP, COPP and  $\varepsilon$ -COP, respectively).

#### **REFERENCES**

- 1. Quek, H.H., et al. 1997. Molecular and cellular studies of the human homolog of the 160-kD  $\alpha\textsc{-subunit}$  of the coatomer protein complex. DNA Cell Biol. 16: 275-280
- 2. Chow, V.T., et al. 1997.  $\alpha$  coat protein COPA (HEP-COP): presence of an Alu repeat in cDNA and identity of the amino terminus to xenin. Ann. Hum. Genet. 61: 369-373.
- 3. Feurle, G.E., et al. 1998. Xenin—a review. Peptides 19: 609-615.
- 4. Schroder-Kohne, S., et al. 1998.  $\alpha$ -COP can discriminate between distinct, functional dilysine signals *in vitro* and regulates access into retrograde transport. J. Cell Sci. 111: 3459-3470.
- 5. Chaudhary, A., et al. 1998. Specific interaction of Golgi coatomer protein  $\alpha$ -COP with phosphatidylinositol 3,4,5-trisphosphate. J. Biol. Chem. 273: 8344-8350.

#### **CHROMOSOMAL LOCATION**

Genetic locus: COPA (human) mapping to 1q23.2.

#### **PRODUCT**

COPA 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<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 COPA siRNA (h): sc-43696 and COPA shRNA Plasmid (h): sc-43696-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**

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

#### **GENE EXPRESSION MONITORING**

COPA (H-3): sc-398099 is recommended as a control antibody for monitoring of COPA 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 goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunofluo-rescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor COPA gene expression knockdown using RT-PCR Primer: COPA (h)-PR: sc-43696-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  $4^\circ$  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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