

# Produktinformation



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### SANTA CRUZ BIOTECHNOLOGY, INC.

# BAF57 shRNA (h) Lentiviral Particles: sc-45940-V



#### BACKGROUND

The SWI/SNF complex is involved in the activation of transcription via the remodeling of nucleosome structure in an ATP-dependent manner. Brm (also designated SNF1 or SNF2 $\alpha$ ) and Brg-1 (also designated SNF2 or SNF2 $\beta$ ) are the ATPase subunits of the mammalian SWI/SNF complex. Brm, Brg-1, Ini1 (integrase interactor 1, also designated SNF5), BAF155 (also designated SRG3) and BAF170 are thought to comprise the functional core of the SWI/SNF complex. In higher eukaryotes, BAF57 is also a critical component of the SWI/ SNF complex. BAF57 contains a high-mobility-group (HMG) domain adjacent to a kinesin-like region and is a DNA-binding subunit of the SWI/SNF complex. The human BAF57 gene maps within the g12-25 region of chromosome 17, a gene-rich area implicated in breast and ovarian cancers.

#### REFERENCES

- 1. Muchardt, C., et al. 1993. A human homologue of Saccharomyces cerevisiae SNF2/SWI2 and Drosophila brm genes potentiates transcriptional activation by the glucocorticoid receptor. EMBO J. 12: 4279-4290.
- 2. Khavari, P.A., et al. 1993. BRG1 contains a conserved domain of the SWI2/SNF2 family necessary for normal mitotic growth and transcription. Nature 366: 170-174.
- 3. Imbalzano, A.N., et al. 1996. Nucleosome disruption by human SWI/SNF is maintained in the absence of continued ATP hydrolysis. J. Biol. Chem. 271: 20726-20733.
- 4. Wang, W., et al. 1998. Architectural DNA binding by a high-mobilitygroup/kinesin-like subunit in mammalian SWI/SNF-related complexes. Proc. Natl. Acad. Sci. USA 95: 492-498.
- 5. Phelan, M.L., et al. 1999. Reconstitution of a core chromatin remodeling complex from SWI/SNF subunits. Mol. Cell 3: 247-253.

#### CHROMOSOMAL LOCATION

Genetic locus: SMARCE1 (human) mapping to 17q21.2.

#### PRODUCT

BAF57 shRNA (h) Lentiviral Particles is a pool of concentrated, transductionready 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 BAF57 siRNA (h): sc-45940 and BAF57 shRNA Plasmid (h): sc-45940-SH as alternate gene silencing products.

#### **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.

#### PROTOCOLS

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

#### **APPLICATIONS**

BAF57 shRNA (h) Lentiviral Particles is recommended for the inhibition of BAF57 expression in human cells.

#### SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 µl frozen viral stock containing 1.0 x 10<sup>6</sup> 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

BAF57 (C-20): sc-25140 is recommended as a control antibody for monitoring of BAF57 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<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

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

Semi-quantitative RT-PCR may be performed to monitor BAF57 gene expression knockdown using RT-PCR Primer: BAF57 (h)-PR: sc-45940-PR (20 µl, 592 bp). 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.

#### **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.