

## Product datasheet for **SR407545**

### **Snai1 Mouse siRNA Oligo Duplex (Locus ID 20613)**

#### **Product data:**

|                            |   |
|----------------------------|---|
| <b>Product Type:</b>       | siRNA Oligo Duplexes  |
| <b>Purity:</b>             | HPLC purified   |
| <b>Quality Control:</b>    | Tested by ESI-MS  |
| <b>Sequences:</b>          | Available with shipment   |
| <b>Stability:</b>          | One year from date of shipment when stored at -20°C.  |
| <b># of transfections:</b> | Approximately 330 transfections/2nmol in 24-well plate under optimized conditions (final conc. 10 nM).  |
| <b>Note:</b>               | Single siRNA duplex (10nmol) can be ordered.  |
| <b>RefSeq:</b>             | <a href="#">NM_011427</a>   |
| <b>UniProt ID:</b>         | <a href="#">Q02085</a>  |
| <b>Synonyms:</b>           | Sna; Sna1; Snail; Snail1  |
| <b>Components:</b>         | Snai1 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 20613)<br>Included - SR30004, Trilencer-27 Universal Scrambled Negative Control siRNA Duplex - 2 nmol<br>Included - SR30005, RNase free siRNA Duplex Resuspension Buffer - 2 ml |



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**Summary:**

Involved in induction of the epithelial to mesenchymal transition (EMT), formation and maintenance of embryonic mesoderm, growth arrest, survival and cell migration. Binds to 3 E-boxes of the E-cadherin gene promoter and to the promoters of CLDN7 and KRT8 and, in association with histone demethylase KDM1A which it recruits to the promoters, causes a decrease in dimethylated H3K4 levels and represses transcription. Involved in induction of the epithelial to mesenchymal transition (EMT), formation and maintenance of embryonic mesoderm, growth arrest, survival and cell migration. Binds to 3 E-boxes of the E-cadherin/CDH1 gene promoter and to the promoters of CLDN7 and KRT8 and, in association with histone demethylase KDM1A which it recruits to the promoters, causes a decrease in dimethylated H3K4 levels and represses transcription. The N-terminal SNAG domain competes with histone H3 for the same binding site on the histone demethylase complex formed by KDM1A and RCOR1, and thereby inhibits demethylation of histone H3 at 'Lys-4' (in vitro) (By similarity). During EMT, involved with LOXL2 in negatively regulating pericentromeric heterochromatin transcription (PubMed:24239292). SNAI1 recruits LOXL2 to pericentromeric regions to oxidize histone H3 and repress transcription which leads to release of heterochromatin component CBX5/HP1A, enabling chromatin reorganization and acquisition of mesenchymal traits (PubMed:24239292). Associates with EGR1 and SP1 to mediate 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced up-regulation of CDKN2B, possibly by binding to the CDKN2B promoter region 5'-TCACA-3'. In addition, may also activate the CDKN2B promoter by itself.[UniProtKB/Swiss-Prot Function]

**Performance Guaranteed:**

OriGene guarantees that at least two of the three Dicer-Substrate duplexes in the kit will provide at least 70% or more knockdown of the target mRNA when used at 10 nM concentration by quantitative RT-PCR when the TYE-563 fluorescent transfection control duplex (cat# SR30002) indicates that >90% of the cells have been transfected and the HPRT positive control (cat# SR30003) provides 90% knockdown efficiency.

For non-conforming siRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the siRNA kit. To arrange for a free replacement with newly designed duplexes, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled siRNA control (quantitative RT-PCR data required).