

## Product datasheet for MC201419

### Snai1 (NM\_011427) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Snai1 (NM_011427) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Snai1
Synonyms:	Sna; Sna1; Snail; Snail1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >BC034857 sequence for NM\_011427

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CGGAGTTGACTACCGACCTTGCGGACCCGGTGACCCCGACTACCTAGGTCGCTCTGGCCAACATGCCGC
GCTCCTTCCTGGTCAGGAAGCCGTCCGACCCCGCCGGAAGCCCAACTATAGCGAGCTGCAGGACGCGTG
TGTGGAGTTCACCTTCCAGCAGCCCTACGACCAGGCCACCTGCTGGCCGCCATCCCTCCGCCCGAGGTC
CTCAACCCCGCCGCTTCGCTGCCACCCCTCATCTGGGACTCTCTCCTGGTACCCCAAGTCGCGCCGTTG
CCTGGGCCACCTCCCGCTGCGGGAGAGCCCCAAGGCCGTAGAGCTGACCTCGCTGTCCGATGAGGACAG
TGGCAAAAGCTCCAGCCGCCAGCCGCCCTCGCCGGCGCCGTCGTCTCTCGTCCACCTCGGCCTCG
TCCCTGGAGGCCGAGGCCTTCATCGCCTTCCCTGGCTTGGGCCAACTTCCCAAGCAGCTGGCCAGGCTCT
CGGTGGCCAAGGACCCCGAGTCGCGGAAGATCTCAACTGCAAAATTGTAAACAAGGAGTACCTCAGCCT
GGGCGCTCTGAAGATGCACATCCGAAGCCACACGCTGCCTTGTGTCTGCACGACCTGTGAAAGGCCTTC
TCTAGGCCCTGGCTGCTTCAGGGCCACGTCGCGACCCACACTGGTGAGAAGCCATTCTCCTGCTCCCACT
GCAACCGTGCTTTTGCTGACCGCTCCAACCTGCGTGCCACCTCCAAACCACTCGGATGTGAAGAGATA
CCAGTGCCAGGCCTGTGCCCCAACCTTCTCCCGCATGTCTTGCTCCACAAGCACCAAGAGTCTGGCTGC
TCCGGAGGCCCTCGCTGACCCTGTACCTCCCCATCCTCGCTGGCATCTTCCCGGAGCTCACCTCCTCC
TCACTGCCAGGACTCCTTCCAGCCTTGGTCCGGGGACCTGTGGCGTCCATGTCTGGACCTGGTTCCTGCT
TGGCTCTCTTGGTGGCCTTTGCCGACAGTGGCTGATGGAGTGCCTTTGTACCCGCCAGAGCCTCCTACC
CCTCAGTATTCATGAGGTGTAGCCTCTGGACACAGCTGCTTCGAGCCATAGAATAAGCCAACCCACTG
GCTGGGAAGCTTGAACCCCGCTCAGGGGACCCCACTTCCCTACCTCCCTCAAGGACCTTCAGGCCACCT
TCTTTGAGGTACAACAGACTATGCAATAGTTCCCTCCCCCACCCTCCAGCTGTAACCATGCCTCA
GCAGGGTGGTTACTGGACACATGTCCAGGTGCCCTGGGCTGGGCAACTGTTTCAGCCCCGCCCCAT
TTGTCTGCTGTGACACCTGTTTCACAGCAGTTTAACTGTCTCAGAAGGGACCATGAATAATGGCCATCACT
TGTTAGGGGCCAAGTGGGTGCTTCAGCCTGGCCAATGTGTCTCCAGAATAATTTGGGGCCCAACAGG
TGGCCCCGGGAGAAAGATGTTTACATTTAAAGGTATTTATATTGTAAGCAGCATTTTGTATAGTTAATA
TGTACAGTTTATTGATATTCAATAAAATGGTTAATTTATATACTAAAAAAAAAAAAAAAAAAAAAAAAA AAA
  
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**Restriction Sites:** EcoRI-NotI


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<b>ACCN:</b>	NM_011427
<b>Insert Size:</b>	795 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">BC034857</a> , <a href="#">AAH34857</a>
<b>RefSeq Size:</b>	1613 bp
<b>RefSeq ORF:</b>	795 bp
<b>Locus ID:</b>	20613
<b>UniProt ID:</b>	<a href="#">Q02085</a>
<b>Cytogenetics:</b>	2 87.33 cM

**Gene 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]