

Recombinant Mouse Snai1 Protein, Myc/DDK-tagged

Cat. No. Snai1-5989M Lot. No. (See product label)

SPECIFICATION

Product Overview

Purified recombinant protein of mouse full-length snail family zinc finger 1 (Snai1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species

Mouse

Source

HEK293

Description

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). During EMT, involved with LOXL2 in negatively regulating pericentromeric heterochromatin transcription. 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. Associates with EGR1 and S

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P1 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.

Molecular Mass	29.2 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Snai1 snail family zinc finger 1 [Mus musculus (house mouse)]
Official Symbol	Snai1
Synonyms	SNAI1; snail homolog 1 (Drosophila); zinc finger protein SNAI1; protein sna; protein snail homolog 1; Sna; Sna1; Snail; Snail1; AI194338
Gene ID	20613
mRNA Refseq	NM_011427
Protein Refseq	NP_035557

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