LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human SNAI1 Protein
Catalog Number: hTF-0538
Manufacturer: LD Biopharma, Inc.

Introduction

The Drosophila embryonic protein snail is a zinc finger transcriptional repressor which down-regulates the expression of ectodermal genes within the mesoderm. The nuclear protein encoded by this human SNAI1 gene is structurally similar to the Drosophila snail protein, and is also thought to be critical for mesoderm formation in the developing embryo. Recent data also demonstrated that SNAI1 plays important roles in Epithelial to Mesenchymal transition (EMT) and maintenance of embryonic mesoderm.

Full-length human SNAI1 cDNA (264aa) was constructed with codon optimization and with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein was expressed in E. coli as inclusion bodies, refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	SNAI1 (SLUGH2; SNA; SNAH; dJ710H13.1)
Accession Number:	NP_005976.2
Species:	Human
Size:	50 µg / Vial
Composition:	0.25 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

ALiu,S.,et al., *MicroRNA-9 up-regulates E-cadherin through inhibition of NF-kappaB1-Snail1 pathway in melanoma*. J. Pathol. 226 (1), 61-72 (2012)

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Kim,H.N., et al., *Modulation of PGE2-induced EP4 expression on snail signaling and the impact on epithelial-mesenchymal transition: significance of EP4 antagonism*. Anticancer Res. 31 (12), 4347-4357 (2011)

Lim,S.O., et al., *Notch1 binds and induces degradation of Snail in hepatocellular carcinoma.* BMC Biol. 9, 83 (2011)

Dhasarathy,A., et al., *The transcription factors Snail and Slug activate the transforming growth factor-beta signaling pathway in breast cancer*. PLoS ONE 6 (10), E26514 (2011)

Applications

1. May be used for embryonic mesoderm differentiation regulation or EMT process study using intracellular delivery of recombinant SNAI1 protein technology, such as PULSin™ protein transfection system. .
2. May be used as specific substrate protein for kinase or ubiquitin ligase assay.
3. May be used as antigen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHGNLYFQGGEFPRSFLVRKPSDPNRKPNYSELQDSNPEFTFQQPYD
QAHLLAAIPPPEILNPTASLPMLIWDSVLAPQAQPIAWASLRLQESPRVAELTSLSDEDSGKGS
QPPSPPSPAPSSFSSTSVSSLEAEAYAAFPGLGQVPKQLAQLSEAKDLQARKAFNCKYCNKEYL
SLGALKMHIRSHTLPCVCGTCGKAFSRPWLLQGHVRTHTGEKPFSCPHCSRAFADRSNLRAHLQ
THSDVKKYQCQACARTFSRMSLLHKHQESGCSGCPR