



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human Sox5 Protein
Catalog Number: hTF-1767
Manufacturer: LD Biopharma, Inc.

Introduction

Human Sox5 gene encodes a member of the SOX (SRY-related HMG-box) family of transcription factors involved in the regulation of embryonic development and in the determination of the cell fate. The encoded protein may act as a transcriptional regulator after forming a protein complex with other proteins. The encoded protein may play a role in chondrogenesis. A pseudogene of this gene is located on chromosome 8. Multiple transcript variants encoding distinct isoforms have been identified for this gene.

Full-length human Sox5 (762aa, Isoforms-a, derived from BC060773) gene was constructed with codon optimized gene synthesis technology, and fusion with 30 aa N-terminal T7 / His / TEV cleavage site Tag. This protein is expressed in E Coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: Sox5 (L-Sox5; L-Sox5B; L-Sox5F)
Accession Number: NP_008871
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Wang D, et al., *SOX5 promotes epithelial-mesenchymal transition and cell invasion via regulation of Twist1 in hepatocellular carcinoma*. Med. Oncol. 32 (2), 461 (2015)

Renjie W et al., *MiR-132, miR-15a and miR-16 synergistically inhibit pituitary tumor cell proliferation, invasion and migration by targeting Sox5*. Cancer Lett. 356 (2 PT B), 568-578



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(2015)

Fazio G, et al., *Three novel fusion transcripts of the paired box 5 gene in B-cell precursor acute lymphoblastic leukemia*. *Haematologica* 100 (1), E14-E17 (2015)

Mata-Rocha M, et al., *The transcription factors Sox5 and Sox9 regulate Catsper1 gene expression*. *FEBS Lett.* 588 (18), 3352-3360 (2014)

Applications

1. May be used for in vitro Sox5 mediated *gene transcription regulation* study for various cells, such as chondrogenesis, by intracellular delivery of this protein with ProFectin reagent.
2. May be used for mapping Sox5 protein-protein interaction assay.
3. May be used as specific substrate protein for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker protein for monitoring various cancer clinical progressions, such as invasiveness of breast & endometrial, osteosarcoma, et al.
5. May be used for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGFSSKRPA SPYGEADGEVAMVTSRQKVEEEESDGLPAF
HLPLHVSFPNKP HSEEFQPVSLLTQETCGHRTPT SQHNTMEVDGNKVMSSFAPHNSSTSPQKAE
EGGRQSGESLSSTALGTPERRKGLADVVDTLKQRKMEELIKNEPEETPSIEKLLSKDWKDKLL
AMGSGNFGEIKGTPE SLAEKERQLMGMINQLTSLREQLLAAHDEQKKLAASQIEKQRQQMELAK
QQQEQIARQQQQLLQQQH KINLLQQQIQVQGQLPPLMIPVFPDQRTLAAAQQGFLLPPGFSY
KAGCSDPYPVQLIPTTMAAAAATPGLGPLQLQQLYAAQLAAMQVSPGGKLP GIPQGNLGA AVS
PTS IHTDKSTNSPPPKSKEKTTLES LTQQQLAVKQNEEGKFSHAMMDFNLSGSDSGSAGVSESRI
YRESRGRGSNEPHIKRPMNAFMVWAKDERRKILQAF PDMHNSNISKILGSRWKAMTNLEKQPY
EEQARLSKQHLEKYPDYKYKPRPKRTCLVDGKKLRIG EYKAIMRNRQEMRQYFNVGQQAQIP I
ATAGVVYPGAIAMAGMPSPHLPSEHSSVSSSPEPGMPVIQSTYGVKGEEPHIKEEIQ AEDINGE
IYDEYDEEEDDPD VDYGSDSENHIAGQAN