



LD Biopharma, Inc.
7384 Trade Street, Suite B
San Diego, CA 92121
Tel: 858-876-8266
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CDX2 Protein
Catalog Number: HTF-1495
Manufacturer: LD Biopharma, Inc. USA

Introduction

Human homeobox protein CDX2 gene encodes a transcription factor, which is involved in the transcriptional regulation of multiple genes expressed in the intestinal epithelium. It plays an important in broad range of functions from early differentiation to maintenance of the intestinal epithelial lining of both the small and large intestine. CDX2 binds preferentially to methylated DNA.

Full-length human CDX2 cDNA (312aa, derived from BC014461) was constructed with codon optimization using gene synthesis technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. It was 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:	CDX2	(CDX2/AS; CDX3)
Accession Number:	NP_001256.4	
Species:	Human	
Size:	20 µg / Vial	
Composition:	0.1 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose, DTT & others.	
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least two weeks.	

Key References

Junhui Yu., et al., *CDX2 inhibits the proliferation and tumor formation of colon cancer cells by suppressing Wnt/ β -catenin signaling via transactivation of GSK-3 β and Axin2 expression*. Cell Death Dis. Jan 10;10(1): 26. (2019)

Bruun J., et al., *Prognostic, predictive and pharmacogenomics assessments of CDX2 refine stratification of colorectal cancer*. Mol Oncol. Sep; 12(9):1639-1655. (2018)



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Graule J., et al., *CDX2 in colorectal cancer is an independent prognostic factor and regulated by promote methylation and histone deacylation in tumors of the serrated pathway*. Clin Epigenetics. Sep 26;10(1):120. (2018)

Applications

1. May be used for in vitro CDX2 mediated gene transcription regulation study for colorectal cancer cells by intracellular delivery of this protein with protein delivery reagent such as ProFectin reagent kit.
2. May be used for mapping CDX2 protein-protein interaction.
3. May be used as specific CDX2 substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker protein / therapeutic target protein for colorectal cancer diagnosis and prognosis.
5. As native human CDX2 antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Human CDX2 Protein Sequence (36.6 kD)

MASMTGGQQMGRGHHHHHENLYFQGGEFYVSYLLDKDVSMYPSSVRHSGGLNLPQNFVSPPO
YPDYGGYHVAAAAAAAAANLDSAQSPGPSWPAAYGAPLREDWNGYAPGGAAAAANAVAHGLNNGS
PAAAMGYSSPADYHPHHHPHHHPHHPAAAPSCASGLLQTLNPGPPGPAATAAAEQLSPGGQRRN
LCEWMRKPAQQSLGSQVKTRTKDKYRVVYTDHQRLLEKEFEFHYSTRYITIRKAEAAATLGLSER
QVKIWFQNRRAKERKINKKKLQQQQQQPPQPPPPPPQPPQPPGPLRSVPEPLSPVSSLQASV
SGSVPGVLGPTGGVLNPTVTQ