



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human NKX3-1 Protein
Catalog Number: hTF-0395
Manufacturer: LD Biopharma, Inc.

Introduction

The homeodomain-containing transcription factor NKX3-1 is a putative prostate tumor suppressor that is expressed in a largely prostate-specific and androgen-regulated manner. Loss of NKX3-1 protein expression is a common finding in human prostate carcinomas and prostatic intraepithelial neoplasia.

Full-length recombinant human NKX3-1 protein was constructed with N-terminal TEV enzyme cleavage site 29aa T7/His Tag. This protein was expressed in *E. coli* as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified. Incubating this protein with PolyPlus or LD Biopharma’s novel polymer reagent will efficiently deliver this protein intracellularly for its functional study in vitro.

Gene Symbol: NKX3-1
Accession Number: NP_006158
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, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 7 days.

Key References

Akamatsu,S.,et al.*A functional variant in NKX3.1 associated with prostate cancer susceptibility down-regulates NKX3.1 expression* Hum. Mol. Genet. 19 (21), 4265-4272 (2010)

Kusy,S., et al. *NKX3.1 is a direct TAL1 target gene that mediates proliferation of TAL1-*



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expressing human T cell acute lymphoblastic leukemia. J. Exp. Med. 207 (10), 2141-2156 (2010)

Hongyan Zhou, et al. *Generation of induced pluripotent stem cells using recombinant protein. Cell Stem Cell. Vol 4. Issue 5: 381-384 (2009)*

Applications

1. Protein transduction for studying human prostate tumor cell pathway in vitro.
2. Active recombinant protein, may be used for DNA/Protein interactions study in vitro.
3. As specific protein substrate for kinase assay.
4. As immunogen for specific antibody production.
5. Potential tumor biomarker protein for diagnostic applications.

Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFLRVPEPRPGEAKAEGAAPPTPSKPLTSFLIQDILR
DGAQRQGGRTSSQRQRDPEPEPEPEPEGGRSRAGAQNQLSTGPRAAPEEAETLAETEPERHLG
SYLLDSENTSGALPRLPQTPKQPQKRSRAAFSHTQVIELERKFQKYLKLSAPERAKLAKNLKLT
ETQVKIWFQNRRYKTKRKQLSSELGDLEKHSSLPALKEEAFSRASLVSVYNSYPYYPYLYCVGS
WSPAFW