



**LD Biopharma, Inc.**  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human NXT1 Protein  
**Catalog Number:** hRP-0833  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The protein encoded by human NTF2-related export protein 1 (NXT1) gene is located in the nuclear envelope. It has protein similarity to nuclear transport factor 2. This protein functions as a nuclear export factor in both RAN (Ras-related nuclear protein)- and CRM1 (required for chromosome region maintenance)-dependent pathways. It is found to stimulate the export of U1 snRNA in RAN- and CRM1-dependent pathways and the export of tRNA and mRNA in a CRM1-independent pathway. The encoded protein heterodimerizes with Tap protein and may regulate the ability of Tap protein to mediate nuclear mRNA export.

Full-length human NXT1 (140 aa) gene was constructed with 15 aa N-terminal T7 tag and 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:** NXT1 (MTR2; P15)  
**Accession Number:** NP\_037380  
**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

Katahira, J., et al., *Complex formation between Tap and p15 affects binding to FG-repeat nucleoporins and nucleocytoplasmic shuttling*. J. Biol. Chem. 277 (11), 9242-9246 (2002)

Black, B.E., et al., *NXT1 is necessary for the terminal step of Crm1-mediated nuclear*



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*export*. J. Cell Biol. 152 (1), 141-155 (2001)

Ossareh-Nazari, B., et al., *RanGTP-binding protein NXT1 facilitates nuclear export of different classes of RNA in vitro*. Mol. Cell. Biol. 20 (13), 4562-4571 (2000)

## **Applications**

1. May be used for in vitro NXT1 mediated target specific mRNA nuclear export pathway regulation study with intracellular delivery of this protein.
2. As soluble / native protein, may be used as enzymatic substrate protein for kinase and ubiquitin assay development.
3. May be used for mapping NXT1 protein-protein interaction.
4. May be used as antigen for specific antibody development.

## **Quality Control**

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

## **Recombinant Protein Sequence**

MASMTGGQQMGRGEFMASVDFKTYVDQACRAAEFFVNVYYTTMDKRRRLLSRLYMGATLVWNG  
NAVSGQESLSEFFEMLPSSFEFQISVVDCQPVHDEATPSQTTVLVVICGSVKFEGNKQRDFNQNF  
ILTAQASPSNTVWKIASDCFRFQDWAS