



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CD73 Protein  
**Catalog Number:** hRP-0591  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The protein encoded by human 5'-nucleotidase (CD73) gene is a plasma membrane protein that catalyzes the conversion of extracellular nucleotides to membrane-permeable nucleosides. The encoded protein is used as a determinant of lymphocyte differentiation. Defects in this gene can lead to the calcification of joints and arteries. Two transcript variants encoding different isoforms have been found for this gene. Recent data indicated that activities of CD73 may be involved in melanoma metastasis and breast cancer prognosis prediction.

Human CD73 extracellular domain cDNA (27 - 549 aa, Isoform-1, derived from BC065937) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal 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:** CD73 (NT5E; E5NT; NT5; NTE; eNT)  
**Accession Number:** NP\_002517  
**Species:** Human  
**Size:** 100 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, 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

Wang,H., et al., *NT5E (CD73) is epigenetically regulated in malignant melanoma and associated with metastatic site specificity.* Br. J. Cancer 106 (8), 1446-1452 (2012)



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Supernat,A., et al., *CD73 expression as a potential marker of good prognosis in breast carcinoma*, Appl. Immunohistochem. Mol. Morphol. 20 (2), 103-107 (2012)

Sauer,A.V., et al., *Alterations in the adenosine metabolism and CD39/CD73 adenosinergic machinery cause loss of Treg cell function and autoimmunity in ADA-deficient SCID*, Blood 119 (6), 1428-1439 (2012)

Serra,S., et al., *CD73-generated extracellular adenosine in chronic lymphocytic leukemia creates local conditions counteracting drug-induced cell death*. Blood 118 (23), 6141-6152 (2011)

## **Applications**

1. May be used as coating matrix protein for in vitro Treg cell function regulations study.
2. May be used for protein-protein interaction assay development.
3. Potential diagnostic biomarker protein for breast cancer.
4. As antigen for specific antibody production.

## **Quality Control**

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

## **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHGNLYFQGGEWELTILHTNDVHSRLEQTSSESSKCVNASRCMGGVARRLFTKVQQIRRAEPNVLLLLDAGDQYQGTIWFTVYKGAEVAHFMNALRYDAMALGNHEFDNGVEGLIEPLLKEAKFPILSANIKAKGPLASQISGLYLPYKVLVPGDEVVGVIGYTSKETPFLSNPGTNLVFEDEITALQPEVDKLTNLNVNKIIALGHSGFEMDKLIAQKVRGVDVVVGGHSNTFLYTGNPPSKEVPAGKYPIVTSDDGRKVPVQAYAFGKYLGYLKI EFDERGNVISSHGNPILLNSSIPEDPSIKADINKWRIKLDNYSTQELGKTIVYLDGSSQSCRFRECNMGNLICDAMINNNLRHTDEMFWNHVSMCILNGGGIRSPIDERNNGTITWENLAAVLPFGGTFDLVQLKGSTLKKAFEHVHRYGQSTGEFLQVGGIHVVYDL SRKPGDRVVKLDVLC TKCRVPSYDPLKMDEVYKVI LPNFLANGGDGFQM IKDELLRHDSGDQDINVVSTYISKMKVIYPAVEGRIKFS