



**LD Biopharma, Inc.**  
7384 Trade Street, Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CD249 Protein  
**Catalog Number:** hRP-2273  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human CD249 gene encodes a type-II membrane protein and function as glutamyl aminopeptidase which appears to have a role in the catabolic pathway of the renin-angiotensin system. It probably plays a role in regulating growth and differentiation of early B-lineage cells. CD249 mainly expressed by epithelial cells of the proximal tubule cells and the glomerulus of the nephron. It is also found in a variety of other tissues.

Full-length human CD249 cDNA (40 – 957aa) was constructed with codon optimization gene synthesis and expressed with a human N-terminalT7-His-TEV cleavage site Tag (29aa) fusion. This protein 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:** CD249 (ENPEP; APA; gp160)  
**Accession Number:** NP\_001968  
**Species:** Human  
**Size:** 10 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 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

Malinauskas M, et al., *Local expression of AP/AngIV/IRAP and effect of AngIV on glucose-induced epithelial transport in human jejunal mucosa J Renin Angiotensin Aldosterone Syst* 16 (4), 1101-1108 (2015)



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Blanco L, et al., *Altered glutamyl-aminopeptidase activity and expression in renal neoplasms*. BMC Cancer 14, 386 (2014)

Feliciano A, et al., *miR-125b acts as a tumor suppressor in breast tumorigenesis via its novel direct targets ENPEP, CK2-alpha, CCNJ, and MEGF9*. PLoS ONE 8 (10), E76247 (2013)

## Applications

1. May be used for in vitro CD249 mediated catabolic pathway of the renin-angiotensin regulation or tumor specific Th1 cell activity study with this protein either as soluble factor or as coating matrix protein.
2. May be used for protein-protein interaction assay.
3. Potential therapeutic protein, which may be used as modulator for regulating tumor specific Th1 activities in vivo.
4. As immunogen for specific antibody production.

## Quality Control

Purity: > 70% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGFVGLIVGLAVGLTRSCDSSGDGGPGTAPAPSHLPSS  
TASPSGPPAQDQDPCPASEDESGQWKNFRLPDFVNPVHYDLHVKPLLEEDTYTGTVSIINLSA  
PTRYLWLHLRETRITRLELKRPSGDQVQVRRCFEYKKQEYVVVEAEEELTPSSGDGLYLLTME  
FAGWLNGSLVGFYRTTYTENGRVKSIVATDHEPTDARKSFPCFDEPNKKATYTIISITHPKEYGA  
LSNMPVAKEESVDDKWTRTTFEKSVPMSTYLVCFVAVHQFDSVKRISNSGKPLTIYVQPEQKHTA  
EYAANITKSVFDYFEEYFAMNYSLPKLDKIAIPDFGTGAMENWGLITYRETNLLYDPKESASSN  
QQRVATVVAHEL VHQWFGNIVTMDWWEDLWLNELGFAFFFLGVNHAETDQMRDQMLLEDVLP  
VQEDDSLMSHP I I V T V T T P D E I T S V F D G I S Y S K G S S I L R M L E D W I K P E N F Q K G C Q M Y L E K Y Q F  
KNAKTSDFWAAL E E A S R L P V K E V M D T W T R Q M G Y P V L N V N G V K N I T Q K R F L L D P R A N P S Q P P S D L  
GYTWNIPVKWTE DNITSSVLFNRSEKEGITLNSSNPSGNAFLKINPDHIGFYRVNYEVATWDSI  
ATALSLNHKTFSSADRASLIDDAFALARAQLLDYKVALNLT KYL K R E E N F L P W Q R V I S A V T Y I I  
SMFEDDKELYPMIEEYFQGVKPIADSLGWNDAGDHVTKLLRSSLVGLGFACKMGDREALNNASSL  
FEQWLNGTVSLPVLNRLLLVRYGMQNSGNEISWNYTLEQYQKTSLAQEKEKLLYGLASVKNVTL  
LSRYLDLLKDTNLIKTDVFTVIRYISYNSYGKNMAWNWIQLNWDYLVNRYTLNRRNLGRIVTI  
AEPFNTELQLWQMESFFAKYPQAGAGEKPREQVLETVKNNIEWLKQHRNTIREWFFNLLESG