



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

**Name of Product:** Recombinant Human CD337 Protein  
**Catalog Number:** hRP-1413  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The protein encoded by human CD337 gene is a natural cytotoxicity-activating receptor that contributes to the increased efficiency of activated natural killer (NK) cells to mediate tumor cell lysis. Engagement of CD337 by BAG6 also promotes dendritic cell (DC) maturation, both through killing those DCs that did not properly acquire a mature phenotype, and inducing NK cells to release TNFA and IFNG, which promotes DC maturation. CD337 protein interacts with CD3-zeta (CD247), a T-cell receptor. A single nucleotide polymorphism in the 5' untranslated region of this gene has been associated with mild malaria susceptibility.

Full-length extracellular domain of human CD337 cDNA (19 – 135 aa) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is 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:** CD337 (NCR3; 1C7; LY117; MALS; NKp30)  
**Accession Number:** NP\_667341  
**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, 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

Herrmann J, et al., *Homo-oligomerization of the activating natural killer cell receptor NKp30 ectodomain increases its binding affinity for cellular ligands*. J. Biol. Chem. 289 (2), 765-777 (2014)



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Binici J, et al., *A soluble fragment of the tumor antigen BCL2-associated athanogene 6 (BAG-6) is essential and sufficient for inhibition of NKp30 receptor-dependent cytotoxicity of natural killer cells.* J. Biol. Chem. 288 (48), 34295-34303 (2013)

Rusakiewicz S, et al., *NCR3/NKp30 contributes to pathogenesis in primary Sjogren's syndrome.* Sci Transl Med 5 (195), 195RA96 (2013)

Matta J, et al., *Induction of B7-H6, a ligand for the natural killer cell-activating receptor NKp30, in inflammatory conditions.* Blood 122 (3), 394-404 (2013)

## Applications

1. May be used for in vitro non-glycosylated CD337 protein mediated DC or NK cell activations regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used for CD337 protein-protein interaction assay.
3. As enzymatic substrate for various proteases.
4. As antigen for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFLWVSQPPEIRTLLEGSSAFLPCSFNASQGRLAIGSV  
TWRDEVVPGKEVRNGTPEFRGRLAPLASSRFLHDHQAEHLIRDVRGHDASIYVCRVEVLGLGV  
GTGNGTRLVVEKEHPQLG