



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CD335 Protein  
**Catalog Number:** hRP-1650  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human Natural Cytotoxicity Triggering Receptor-1 ( NCR1, also named as CD335 ) is a member of the natural cytotoxicity receptor family, is a main activating NK-cell receptor. Although its ligand(s) remain elusive, recent studies demonstrated CD335 to be critically involved in lymphoma and melanoma eradication. Moreover, CD335 plays an important role in the killing of virus-infected cells by interacting with viral proteins. Anti-CD335 therapeutic antibodies are under clinical investigation now, which may be useful for modulating NK cell activities in various auto-immuno diseases.

Full-length extracellular domain of human CD335 extracellular domain cDNA (22-258 aa, Isoform-a) was constructed by gene synthesis 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:** CD335 (NCR1; LY94; NK-p46)  
**Accession Number:** NP\_004820.1  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 0.5 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

Schneider P, et al., *NKp46-specific expression on skin-resident CD4(+) lymphocytes in mycosis fungoides and Sezary syndrome*. J. Invest. Dermatol. 134 (2), 574-578 (2014)



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

Michel, L., et al., *Use of PLS3, Twist, CD158k/KIR3DL2, and NKp46 gene expression combination for reliable Sezary syndrome diagnosis*. Blood 121 (8), 1477-1478 (2013)

Kramer, B., et al., *Natural killer p46<sup>High</sup> expression defines a natural killer cell subset that is potentially involved in control of hepatitis C virus replication and modulation of liver fibrosis*. Hepatology 56 (4), 1201-1213 (2012)

Jaron-Mendelson, M., et al., *Dimerization of NKp46 receptor is essential for NKp46-mediated lysis: characterization of the dimerization site by epitope mapping*. J. Immunol. 188 (12), 6165-6174 (2012)

## Applications

1. May be used for in vitro CD335 mediated NK cell activation regulatory study with this protein as either soluble factor or coating matrix.
2. May be used for CD335 protein-protein interaction assay
3. Potential biomarker for Sezary syndrome diagnosis when combined with PLS3, Twist, KIR3DL2 protein detection.
4. May be used for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGEFQQQTLPKPFIWAEPHF MVPKEKQVTICCGNYGAVE  
YQLHFEGSLFAVDRPKPPERINKVKFYIPDMNSRMAGQYSCIYRVGELWSEPSNLLDLVVT  
DTPTLSVHPGPEVISGEKVTFYCRLDTATSMFLLLKEGRSSHVQRGYGVQAEFPLGPVTTAHR  
GTYRCFGSYNNHAWSPSEPVKLLVTGDIENSLAPEDPTFPADTWGTYLLTTETGLQKDH  
DHTAQNLLR