



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

**Name of Product:** Recombinant Human CD340 Protein  
**Catalog Number:** hRP-1848  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human CD340 (Receptor tyrosine-protein kinase erb2) gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or over-expression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variant.

Extracellular domain of human CD340 cDNA ( 23 – 652 aa. Isoform A ) was constructed with codon optimization using gene synthesis technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. 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:** CD340 (ERBB2; HER2; MLN19; TKR1)  
**Accession Number:** NP\_004439.2  
**Species:** Human  
**Size:** 40 µg / Vial  
**Composition:** 0.4 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



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Avci N, et al., *Neoadjuvant chemotherapy-induced changes in immunohistochemical expression of estrogen receptor, progesterone receptor, HER2, and Ki-67 in patients with breast cancer.* J BUON 20 (1), 45-49 (2015)

Bal O, et al., *Progesterone receptor status in determining the prognosis of estrogen receptor positive/ HER2 negative breast carcinoma patients.* J BUON 20 (1), 28-34 (2015)

Zavalishina, L.E., et al., *Comparative study of the determination of the HER2 status in gastric cancer in the biopsy and intraoperative specimens.* Arkh. Patol. 76 (6), 22-27 (2014)

## Applications

1. May be used for in vitro CD340 mediated PI3K pathway regulation study for various cancer cell with this protein either as soluble factor or as coating matrix protein.
2. May be used for protein-protein interaction mapping.
3. Potential biomarker/therapeutic protein for various cancer treatments by targeting CD340 with specific antibody derived drugs.
4. As immunogen for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGFETQVCTGTDMKLRLPASPETHLDMLRHLYQGCQVVQ  
GNLELTYLPTNASLSFLQDIQEVQGYVLI AHNQVRQVPLQRLRIVRGTQLFEDNYALAVLDNGD  
PLNNTTPVTGASPGGLRELQLRSLTEILKGGVLIQRNPQLCYQDTILWKDIFHKNNQLALTLID  
TNRSRACHPCSPMCKGSRGWGESSEDCQSLTRTV CAGGCARCKGPLPTDCCHEQCAAGCTGPKH  
SDCLACLHFNHSGICELHCPALVTYNTDTFESMPNPEGRYTFGASCVTACPYNYLSTDVGSCTL  
VCPLHNQEVTAEDGTQRCEKCSKPCARVCYGLGMEHLREVRVAVTSANIQEFAGCKKIFGSLAFL  
PESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLPLDSVFNQLQVIRGRILHNGAY  
SLTLQGLGISWLGLRSLRELGSLALIHHTHLCFVHTVPWDQLFRNPHQALLHTANRPEDECV  
GEG LACHQLCARGHCWGPPTQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECQP  
QNGSVTFCFGPEADQCVACAHYKDP PFCVARCPSGVKPDLSYMP IWKFPDEEGA