

# Human HER2 / ErbB2 Protein (Fc Tag)

Catalog Number: 10004-H02H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD340; ENV; ENVW; ERVWE1; HER-2; HER-2/neu; HER2; HERV-7q; HERV-W-ENV; HERV7Q; HERVW; HERVWENV; MLN 19; MLN19; NEU; NGL; TKR1

### Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Thr 652) of human ErbB2 (NP\_004439.2) was fused with the Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

### Bio Activity:

1. Immobilized Her2/ERBB2 Protein, Human, Recombinant (ECD, hFc Tag)(Cat:10004-H02H) at 2 µg/ml (100 µl/well) can bind Anti-ErbB2 Antibody (Trastuzumab)(Cat:68046-H002), the EC<sub>50</sub> is 16-80 ng/mL. 2. Measured by its ability to block anti-ErbB2 mediated inhibition of BT474 human breast ductal carcinoma cell proliferation. The ED<sub>50</sub> for this effect is 0.5-3 µg/mL in the presence of 0.6 µg/mL Anti-ErbB2/Her2 Monoclonal Antibody.

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

**Predicted N terminal:** Thr 23

### Molecular Mass:

The recombinant human ErbB2/Fc chimera is a disulfide-linked homodimeric protein generated by proteolytic removal of the signal peptide. The monomer comprises 868 amino acids and has a calculated molecular mass of 96.1 kDa. As a result of glycosylation, the monomer migrates as an approximately 130-140 kDa protein in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

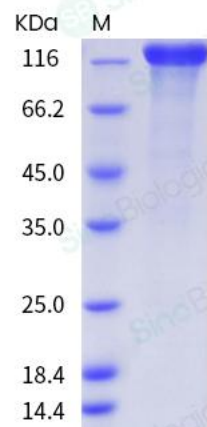
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Human epidermal growth factor receptor 2 (HER2), also known as ErbB2, NEU, and CD340, is a type I membrane glycoprotein and belongs to the epidermal growth factor (EGF) receptor family. HER2 protein cannot bind growth factors due to the lacking of ligand binding domain of its own and autoinhibited constitutively. However, HER2 forms a heterodimer with other ligand-bound EGF receptor family members, therefore stabilizes ligand binding and enhances kinase-mediated activation of downstream molecules. HER2 plays a key role in development, cell proliferation and differentiation. HER2 gene has been reported to associate with malignancy and a poor prognosis in numerous carcinomas, including breast, prostate, ovarian, lung cancers and so on.

## References

3.Krawczyk N, *et al.* (2009) HER2 status on persistent disseminated tumor cells after adjuvant therapy may differ from initial HER2 status on primary tumor. *Anticancer Res.* 29(10): 4019-24.

**For Research Use Only. Not for use in diagnostic or therapeutic procedures.**

**Tel: +86-400-890-9989 (Global), +1-215-583-7898 (USA), +49(0)6196 9678656 (Europe)**

**Website: <http://www.sinobiological.com>**