Catalog # HE2-H5253



#### Synonym

## ERBB2,CD340,HER-2,neu,HER2,MLN19,NEU,NGL,TKR1

#### Source

Human Her2, Fc Tag, premium grade(HE2-H5253) is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Thr 652 (Accession # <u>P04626-1</u>). Predicted N-terminus: Thr 23

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

## **Molecular Characterization**

Her2(Thr 23 - Thr 652) Fc(Pro 100 - Lys 330) P04626-1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 96.0 kDa. The protein migrates as 115-130 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 0.01 EU per  $\mu g$  by the LAL method.

# Sterility

Negative

## Mycoplasma

Negative.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

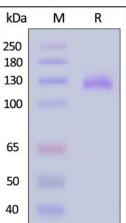
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

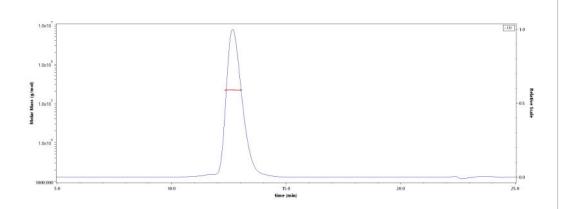
This product is stable after storage at:

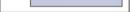
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# SDS-PAGE



# **SEC-MALS**





Human Her2, Fc Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

**Bioactivity-ELISA** 



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The purity of Human Her2, Fc Tag, premium grade (Cat. No. HE2-H5253) is more than 85% and the molecular weight of this protein is around 200-245 kDa verified by SEC-MALS.

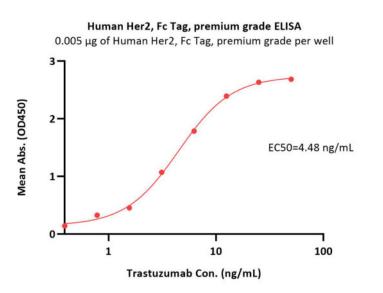
<u>Report</u>



# Human Her2 / ErbB2 Protein, Fc Tag, premium grade

Catalog # HE2-H5253





Immobilized Human Her2, Fc Tag, premium grade (Cat. No. HE2-H5253) at  $0.05 \ \mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) can bind Trastuzumab with a linear range of 0.39-6.25 ng/mL (QC tested).

## Background

Human Epidermal growth factor Receptor 2 (HER2) is also called ERBB2, HER-2,HER-2 /neu, NEU, NGL,TKR1 and c-erb B2,and is a protein giving higher aggressiveness in breast cancers. It is a member of the ErbB protein family, more commonly known as the epidermal growth factor receptor family. HER2 is a cell membrane surface-bound receptor tyrosine kinase and is normally involved in the signal transduction pathways leading to cell growth and differentiation. HER2 is thought to be an orphan receptor, with none of the EGF family of ligands able to activate it. Approximately 30% of breast cancers have an amplification of the HER2 gene or overexpression of its protein product. Overexpression of this receptor in breast cancer is associated with increased disease recurrence and worse prognosis. HER2 appears to play roles in development, cancer, communication at the neuromuscular junction and regulation of cell growth and differentiation .

## **Clinical and Translational Updates**



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