



### Synonym

Her2 & ErbB3,HER2 & HER3

#### Source

Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag(HE2-H5254) is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Thr 652 & Ser 20 - Thr 643 (Accession # <u>P04626</u> & <u>P21860</u>).

Predicted N-terminus: Thr 23 & Ser 20

### **Molecular Characterization**

| HER2 (Thr 23 - Thr 652)<br>P04626 | Fc(Pro 100 - Lys 330)<br>P01857 |
|-----------------------------------|---------------------------------|
| ErbB3 (Ser 20 - Thr 643)          | Fc(Pro 100 - Lys 330)           |
| P21860                            | P01857                          |

Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag, produced by co-expression of HER2 and ErbB3, has a calculated MW of 95.9 kDa & 94.9 kDa. The protein migrates as 110-130 kDa when calibrated against Star Ribbon Pre-stained <u>Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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

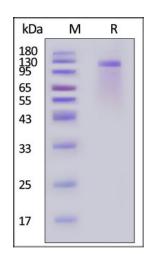
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

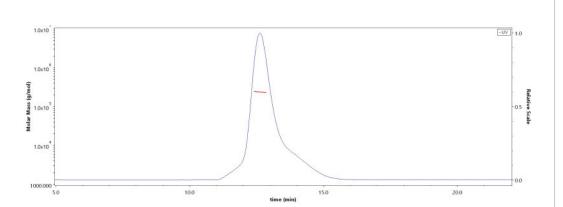
## **SDS-PAGE**



Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

# **Bioactivity-ELISA**

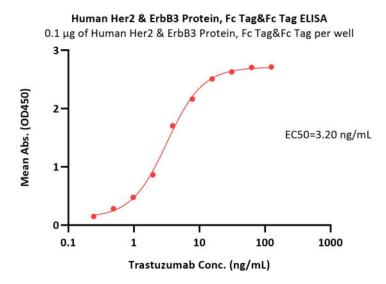
### SEC-MALS



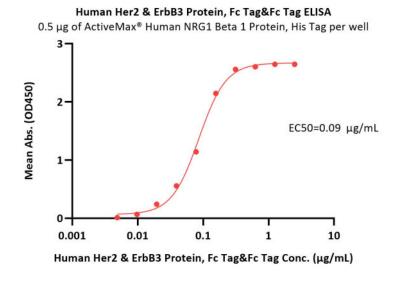
The purity of Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag (Cat. No. HE2-H5254) is more than 85% and the molecular weight of this protein is around 200-250 kDa verified by SEC-MALS.

<u>Report</u>



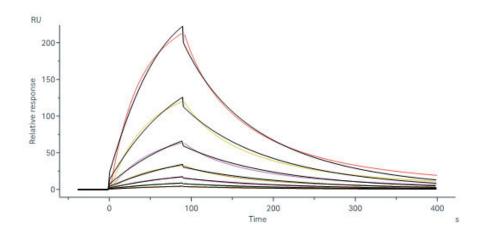


Immobilized Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag (Cat. No. HE2-H5254) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Trastuzumab with a linear range of 0.2-4 ng/mL (QC tested).

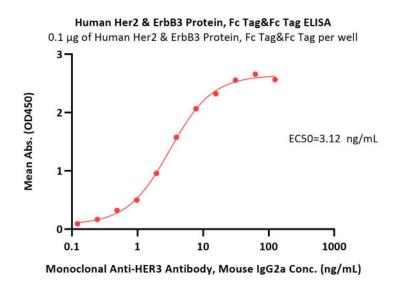


Immobilized ActiveMax® Human NRG1 Beta 1 Protein, His Tag (Cat. No. NR1-H5246) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag (Cat. No. HE2-H5254) with a linear range of 0.02-0.156  $\mu$ g/mL (Routinely tested).

# **Bioactivity-SPR**



Human NRG1 Beta 1, Fc Tag, premium grade (Cat. No. NR1-H5268) immobilized on CM5 Chip can bind Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag (Cat. No. HE2-H5254) with an affinity constant of 114 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Immobilized Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag (Cat. No. HE2-H5254) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-HER3 Antibody, Mouse IgG2a with a linear range of 0.1-4 ng/mL (Routinely tested).

# Human Her2 & ErbB3 Protein, Fc Tag&Fc Tag (MALS verified)

Catalog # HE2-H5254



# Background

The Human Epidermal Growth Factor Receptor 2 (HER2) and HER3 form a potent pro-oncogenic heterocomplex upon binding of growth factor neuregulin- $1\beta$  (NRG1 $\beta$ ). The HER2/HER3 extracellular dimer dynamics likely have important implications for modulating receptor activity.

**Clinical and Translational Updates** 

