

## Recombinant Cynomolgus ERBB2 protein, His-tagged

Cat. No. ERBB2-1217C    Lot. No. (See product label)

### SPECIFICATION

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Product Overview     | Recombinant Cynomolgus ERBB2 Protein (23-652aa), was expressed in human 293 cells (HEK293) with C-terminal His tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Species              | Cynomolgus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Source               | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ProteinLength        | 23-652 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description          | <p>Human Epidermal growth factor Receptor 2 (HER2),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 andregulation of cell growth and differentiation.</p> |
| Predicted N Terminal | Thr23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form                 | Lyophilized from 0.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                       |                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | µm filtered solution in PBS, pH7.4, 10% trehalose.                                                                                                                                                                                                                                                                                                              |
| <b>Molecular Mass</b> | The protein has a calculated MW of 71.2 kDa. The protein migrates as 85-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                                   |
| <b>Endotoxin</b>      | Less than 1.0 EU per µg by the LAL method.                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>        | <p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p> |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | ERBB2                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Official Symbol</b> | ERBB2                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Synonyms</b>        | ERBB2; v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian); NGL, v erb b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); receptor tyrosine-protein kinase erbB-2; CD340; HER 2; HER2; NEU; herstatin; p185erbB2; proto-oncogene Neu; c-erb B2/neu protein; proto-oncogene c-ErbB-2; metastatic lymph node gene 19 protein; tyrosine kinase-type cell |

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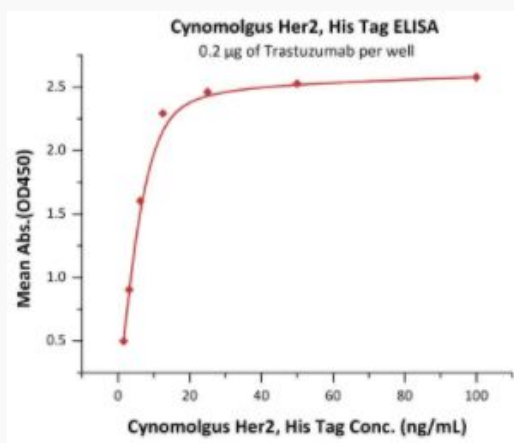
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surface receptor HER2; neuroblastoma/glioblastoma derived oncogene homolog; v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); NGL; TKR1; HER-2; MLN 19; HER-2/neu

|                |                |
|----------------|----------------|
| Gene ID        | 102146608      |
| mRNA Refseq    | XM_005584034.2 |
| Protein Refseq | XP_005584091.2 |
| UniProt ID     | A0A2K5WUT7     |

#### Bioactivity-ELISA of ERBB2-1217C



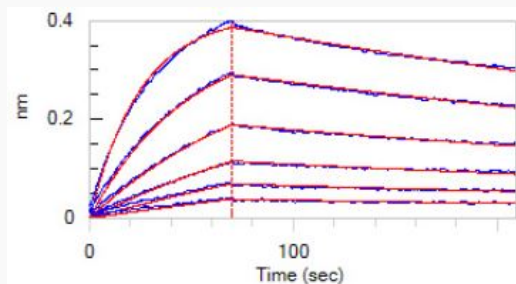
Immobilized Trastuzumab at 2 µg/mL (100 µL/well) can bind Cynomolgus Her2, His Tag with a linear range of 2-6 ng/mL (QC tested).

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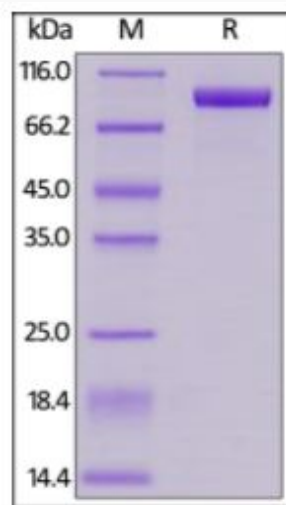
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### Bioactivity-BLI



Loaded Herceptin on AHC Biosensor, can bind Cynomolgus Her2, His Tag with an affinity constant of 4.86 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### SDS-PAGE of ERBB2-1217C



Cynomolgus Her2 on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.