Human Her2 / ErbB2 Protein

Catalog # HE2-H5225
For Research Use Only

**Description**

**Source**
Human Her2, His Tag (HE2-H5225) is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Thr 652 (Accession # AAA75493). Predicted N-terminus: Thr 23

**Predicted N-terminus**
Thr 23

**Protein Structure**

Her2(Thr 23 - Thr 652)  
AAA75493  
Poly-his

**Molecular Characterization**
This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 70.2 kDa. The protein migrates as 110-115 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**
Less than 1.0 EU per μg by the LAL method.

**Purity**
>95% as determined by SDS-PAGE.

**Formulation and Storage**

**Formulation**
Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

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.

No activity loss was observed after storage at:
- 4-8°C for 12 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

**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.

**References**
(6) Daly, R.J., 1999, Growth Factors 16:255.

Please contact us at TechSupport@acrobiosystems.com, if you have any questions about this product.
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Assay Data

SDS-PAGE Data

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

Bioactivity Data

Immobilized Human Her2, His Tag (Cat. No. HE2-H5225) at 0.05 μg/mL (100 μL/well) can bind Trastuzumab with a linear range of 0.2-3 ng/mL (QC tested).

Immobilized Herceptin on AHC Biosensor, can bind Human Her2, His Tag (Cat. No. HE2-H5225) with an affinity constant of 0.93 nM as determined in BLI assay (ForteBio Octet 96) ( Routinely tested).