

HER2/ERBB2 Protein, Human, Recombinant (hFc & Avi), Biotinylated

General Information

Synonyms:	Tyrosine kinase-type cell surface receptor HER2;NGL;EGFR2;TKR1;MLN19;Proto-oncogene Neu;Metastatic lymph node gene 19 protein;ERBB2;Receptor tyrosine-protein kinase erbB-2
Protein Construction:	Thr23-Thr652
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04626
Molecular Weight:	120-140 KDa (reducing condition)
AA Sequence:	Thr23-Thr652

QC Testing

Biological Activity:	<ol style="list-style-type: none">1. Loaded Biotinylated Human HER2-Fc-Avi on SA Biosensor, can bind Anti-Human HER2 mAb with an affinity constant of $<10^{-3}>$ nM as determined in BLI assay. (Regularly tested)2. Immobilized Anti-Human HER2 mAb at 2μg/ml (100 μl/well) can bind Human HER2-Fc-Avi. The ED50 of Human HER2-Fc-Avi is 3.07 ng/ml. (Regularly tested)
Purity:	Greater than 90% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/ μ g (1 EU/ μ g) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Human epidermal growth factor receptor 2 (HER2) is a type of membrane glycoprotein, and belongs to the epidermal growth factor (EGF) receptor family. HER2 plays a key role in development, cell proliferation and

differentiation. HER2 has been reported to associate with malignancy and a poor prognosis in numerous carcinomas, including breast, prostate, ovarian, lung cancers and so on. HER2 is activated by dimerization and not activated by EGF, TGF- α and amphiregulin. Interaction with PTK6 increases its intrinsic kinase activity. It is heterodimer with EGFR, ERBB3 and ERBB4. HER2 associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. It implicated in transcriptional activation of CDKN1A and the function of the protein involves STAT3 and SRC. And also it involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481