Data Sheet (Cat.No.TMPY-05368)

TargetMol

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

General Information

Synonyms:	HERVW;ERVWE1;MLN 19;HERV-W-ENV;HERVWENV;EGFR2;ENVW;MLN19;ENV;HER2;erb-b2 receptor tyrosine kinase 2;HER-2;NGL;NEU;HERV7Q;HER-2/neu;CD340;TKR1;HERV-7q
Protein Construction:	A DNA sequence encoding the extracellular domain (Met1-Thr652) of human ErbB2 (NP_004439.2) was fused with the Fc region of human IgG1 at the C-terminus. The purified protein was biotinylated in vitro. Predicted N terminal: Thr 23
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04626-1
Molecular Weight:	96.1 kDa (predicted)

QC Testing

Biological Activity:	Immobilized Her2/ERBB2 Protein, Human, Recombinant (hFc Tag), Biotinylated at 2 μg/ml (100 μl/well) can bind Anti-Erbb2 Antibody (Trastuzumab), the EC50 is 20-110 ng/mL.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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), also known as ErbB2, NEU, and CD340, is a type I membrane glycoprotein and belongs to the epidermal growth factor (EGF) receptor family. HER2 protein cannot bind growth factors due to the lacking of ligand binding domain of its own and autoinhibited constitutively. However, HER2

forms a heterodimer with other ligand-bound EGF receptor family members, therefore stabilizes ligand binding and enhances kinase-mediated activation of downstream molecules. HER2 plays a key role in development, cell proliferation and differentiation. HER2 gene has been reported to associate with malignancy and a poor prognosis in numerous carcinomas, including breast, prostate, ovarian, lung cancers and so on.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

Krawczyk N,et al.(2009) HER2 status on persistent disseminated tumor cells after adjuvant therapy may differ from initial HER2 status on primary tumor. Anticancer Res. 29(10): 4019-24.