Data Sheet (Cat.No.TMPY-04698)

TargetMol

HER2/ERBB2 Protein, Human, Recombinant (aa 489-630, His)

General Information

Synonyms:	HERV-7q;TKR1;HERV7Q;ENV;HER-2/neu;HERVWENV;NEU;ERVWE1;ENVW;HERVW;erb-b2 receptor tyrosine kinase 2;HER2;HERV-W-ENV;CD340;MLN19;HER-2;NGL;MLN 19;EGFR2
Protein Construction:	A DNA sequence encoding the human ERBB2 (NP_004439.2) (Pro489-Cys630) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Pro 489
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04626-1
Molecular Weight:	17.1 kDa (predicted); 27 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Immobilized Her2/ERBB2 Protein, Human, Recombinant (ECD, domain IV, His Tag) at 2 μg/ml (100 μl/well) can bind Anti-Erbb2 Antibody (Trastuzumab), the EC50 is 15-70 ng/mL.
Purity:	> 85 % 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:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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.