# Human HER2 / ErbB2 Protein (ECD, domain IV) (His Tag)

Catalog Number: 10004-H08H4



## **General Information**

#### Gene Name Synonym:

CD340; HER-2; HER-2/neu; HER2; MLN 19; MLN19; NEU; NGL; TKR1

#### **Protein Construction:**

A DNA sequence encoding the human ERBB2 (AAA75493.1) (Pro489-Cys630) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

**QC** Testing

Purity: > (48.9+40.2) % as determined by SDS-PAGE.

# **Bio Activity:**

1.Measured by its binding ability in a functional ELISA. 2.Immobilized human ErbB2 (Cat:10004-H08H4) at  $10\mu g/mL$  (100 $\mu L/well) can bind herceptin ,the EC <math display="inline">_{50}$  of herceptin is 10-40ng/mL.

#### **Endotoxin:**

< 1.0 EU per µg protein as determined by the LAL method.

#### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Pro 489

## **Molecular Mass:**

The recombinant human ERBB2 consists of 153 amino acids and predicts a molecular mass of 17.1 kDa.

#### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

# **Usage Guide**

## Storage:

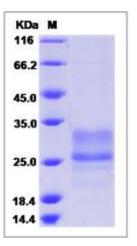
Store it under sterile conditions at  $-20^{\circ}$ C to  $-80^{\circ}$ C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

### Avoid repeated freeze-thaw cycles.

# Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

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.

#### References

3.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.

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