



Catalog Number: 10004 - MM01B

## General Information

Immunogen :	Recombinant human ErbB2 protein ( <a href="#">Catalog#10004-H08H</a> )
Product type :	Biotin conjugated Mouse Monoclonal Antibody
Ig Type :	Mouse IgG2a
Applications :	ELISA
Specificity :	Human ErbB2 / HER2 / CD340
Clone ID :	8B5D4C1
Formulation :	PBS, pH7.4
Storage :	< -20° C

## Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant human ErbB2 / HER2 extracellular domain ( rhErbB2; [Catalog#10004-H08H](#); NP\_004439.2; Met 1- Thr 652 ). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography and then biotinylated.

## Specificity

Human ErbB2 / HER2 / CD340.

**No cross-reactivity** in ELISA with **Human ErbB1 / EGFR** , **Human ErbB3 / HER3** , **Human ErbB4 / HER4** and human cell lysate ( 293 cell line ).

## Applications

**Direct ELISA** – This antibody can be used at 0.5 - 1 µg/mL as a detection antibody to detect human ErbB2 in ELISA.

## Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free.**

Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

## Background

ErbB2, also known as CD340 and HER2, is a type I membrane glycoprotein. It belongs to the epidermal growth factor (EGF) receptor family. ErbB2 cannot bind growth factors due to the lacking of ligand binding domain of its own and autoinhibited constitutively. However, this receptor forms a heterodimer with other ligand-bound EGF receptor family members, therefore stabilizes ligand binding and enhances kinase-mediated activation of downstream molecules. ErbB2 mediates signalling pathways which involve mitogen-activated protein kinase and phosphatidylinositol-3 kinase, this receptor plays a key role in development, cell proliferation and differentiation. ErbB2 is widely expressed in epithelial cells, and amplification and/or overexpression of the this gene has been reported associated with malignancy and a poor prognosis in numerous carcinomas, including breast, prostate and ovarian cancers.

## Reference

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5. Kermit, L. et al, 1999, J. Biol. Chem. 274: 5263-66.
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