

# HER3 / ErbB3 Neutralizing Antibody



Sino Biological  
Biological Solution Specialist

Catalog Number: 10201-mhA24

| General Information  |  |
|----------------------|--|
| <b>Immunogen:</b>    | Recombinant Human HER3 / ErbB3 protein (Catalog#10201-H08H)  |
| <b>Clone ID:</b>     | mhA24  |
| <b>Ig Type:</b>      | mouse (variable region) / human (kappa / IgG1 constant) chimeric antibody                              |
| <b>Applications:</b> | Neutralization   |
| <b>Specificity:</b>  | Human HER3 / ErbB3   |
| <b>Formulation:</b>  | 0.2 µm filtered solution in Histidine and Arginine buffer containing 120mM NaCl, 0.02% Tween 80, pH6.0 |
| <b>Storage:</b>      | < -20°C  |

| Character                     | Method           | Result                            |
|-------------------------------|------------------|-----------------------------------|
| <b>Specificity</b>            | ELISA            | Human HER3 / (Catalog#10201-H08H) |
| <b>Antibody concentration</b> | UV               | > 1 mg/mL                         |
| <b>Aggregation</b>            | SEC-HPLC         | < 5% aggregation                  |
| <b>Purity</b>                 | SDS-PAGE         | > 95%                             |
| <b>Endotoxin</b>              | LAL gel clotting | < 3 EU/mg                         |

## Preparation

It is a chimeric monoclonal antibody combining the constant domains of the human IgG1 molecule with mouse variable regions. The variable region was obtained from a mouse immunized with purified, recombinant Human HER3 / ErbB3. The antibody was produced using recombinant antibody technology.

## Specificity

Human HER3 / ErbB3

**No cross-reactivity** with Mouse ErbB3 (Catalog#51003-M08H) and Rat ErbB3 (Catalog#80111-R08H) in ELISA assay

## 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

ErbB3, also known as Her3 (human epidermal growth factor receptor3), is a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound glycoprotein has a neuregulin binding domain but has not an active kinase domain., and therefore can not mediate the intracellular signal transduction through protein phosphorylation. However, its heterodimer with ErbB2 or other EGFR members responsible for tyrosine phosphorylation forms a receptor complex with high affinity, and initiates the related pathway which lead to cell proliferation or differentiation. ErbB3 has been shown to implicated in numerous cancers, including prostate, bladder, and breast tumors. This protein has different isoforms derived from alternative splicing variants, and among which, the secreted isoform lacking the intermembrane region modulates the activity of membrane-bound form.

## Reference

- Kraus, M.H. et al., 1989, Proc. Natl. Acad. Sci. 86: 9193-9197.
- Carraway, K.L. et al., 1994, J. Biol. Chem. 269: 14303-14306.
- Wallasch, C. et al., 1995, EMBO. J. 14: 4267-4275.
- Alimandi, M. et al., 1995, Oncogene. 10:1813-1821.
- Gamett, D.C. et al., 1995, J. Biol. Chem. 270: 19022-19027.
- Katoh, M. et al., 1993, Biochem. Biophys. Res. Commun. 192: 1189-1197.

# HER3 / ErbB3 Neutralizing Antibody



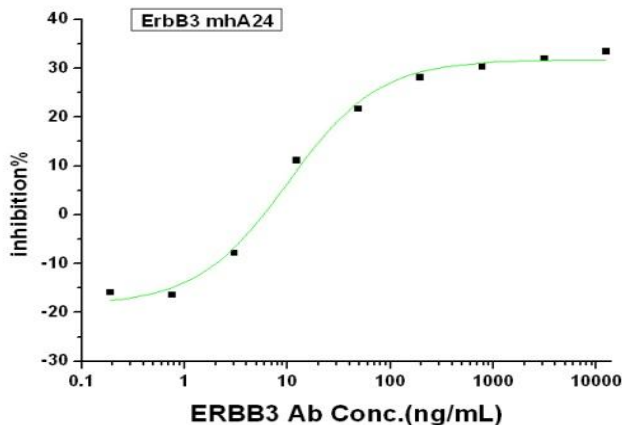
Sino Biological  
Biological Solution Specialist

Catalog Number: 10201-mhA24

## Applications

**Block** - In a functional ELISA which immobilized recombinant Human NRG1/Fc Chimera (Catalog#11609-H01H2) at 5  $\mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) in the plate, the Mouse and Human Chimeric anti-Human ErbB3 Monoclonal Antibody (Catalog#10201-mhA24) can block the binding of 1  $\mu\text{g/mL}$  of biotinylated Human ErbB3 (Catalog#10201-H08H) to Human NRG1/Fc Chimera, the EC50 is 1.78  $\mu\text{g/mL}$ .

**Neutralization** - The neutralization activity of ErbB3 Neutralizing Antibody is Measured by its ability to neutralize NRG1- $\beta$ 1/HRG1- $\beta$ 1 induced proliferation in the MCF-7 human breast cancer cell line. The Neutralization titer (IC50) is typically 5.05-20.2 ng/mL in the presence of



**Cell Proliferation Induced by NRG1- $\beta$ 1/HRG1- $\beta$ 1 was Neutralized by Human ErbB3/Her3 Antibody.** Recombinant Human NRG1- $\beta$ 1/HRG1- $\beta$ 1 stimulates proliferation in the MCF-7 human breast cancer cell line. Proliferation elicited by Recombinant Human NRG1- $\beta$ 1/HRG1- $\beta$ 1 (40 ng/mL) is neutralized by increasing concentrations of Human ErbB3/Her3 Monoclonal Antibody (Catalog#10201-mhA24). The IC50 is typically 5.05-20.2 ng/mL.