

# Mouse Monoclonal Antibody to Human EGFR / ErbB / HER1



Catalog Number: 10001-MM01

General Information	
<b>Immunogen:</b>	Recombinant Human EGFR / ErbB / HER1 Protein ( <a href="#">Catalog #10001-H08H</a> )
<b>Clone ID:</b>	3D2H11C5
<b>Ig Type:</b>	Mouse IgG2b
<b>Applications:</b>	WB, ELISA
<b>Specificity:</b>	Human EGFR / ErbB / HER1
<b>Formulation:</b>	0.2 µm filtered solution in PBS with 5% trehalose
<b>Storage:</b>	< -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 EGFR / ErbB / HER1 (rHuman EGFR / ErbB / HER1; [Catalog #10001-H08H](#); Met 1-Ser 645; NP\_005219). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.

## Applications

**Western blot** – This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human EGFR in WB. Using a DAB detection system, the detection limit for Human EGFR is approximately 1 ng/lane under non-reducing conditions. Use of this antibody under reducing conditions is not recommended.

**Direct ELISA** – This antibody can be used at 0.5-1 µg/mL with the appropriate secondary reagents to detect Human EGFR. The detection limit for Human EGFR is approximately 0.0195 ng/well.

## Specificity

Human EGFR / ErbB / HER1

**No cross-reactivity** in ELISA with

Human EGFR/ErbB1

Human ErbB3

Human cell lysate (293 cell line)

Human ErbB2

Human ErbB4

## 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 -70°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

As a member of the epidermal growth factor receptor tyrosine kinases subfamily, EGFR is type I transmembrane glycoprotein that binds a subset of EGF family ligands including EGF, amphiregulin, TGF-α, betacellulin, etc. EGFR plays a crucial role in signaling pathway in the regulation of cell proliferation, survival and differentiation. Binding of a ligand induces EGF R homo- or hetero- dimerization, the subsequent tyrosine autophosphorylation and initiates various downstream pathways ( MAPK, PI3K/PKB and STAT ). In addition, EGFR signaling also has been shown to exert action on carcinogenesis and disease progression , and thus applications focused on EGFR was proposed as a target for cancer therapy currently.

## References

- Schlessinger, J., 2000, Cell. 103:211-225.
- Giaccone, G., 2005, Ann. Onc. 16: 538-548.
- Yarden, Y., 2001, Nat. Rev. Mol. Cell. Biol. 2: 127-137.

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