**Phospho-HER3/ErbB3 (Tyr1197) (C56E4)**

**Rabbit mAb**

- **100 µl** (10 western blots)

**Store at −20°C**

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**Applications**

| Endogenous | W

**Species Cross-Reactivity**

| H, (M, R) |

**Molecular Wt.**

185 kDa

**Isotype**

Rabbit IgG

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**Background:** HER3/ErbB3 is a member of the ErbB receptor protein tyrosine kinase family, but lacks tyrosine kinase activity. Tyrosine phosphorylation of ErbB3 depends on its association with other ErbB tyrosine kinases. Upon ligand binding, heterodimers form between ErbB3 and other ErbB proteins and ErbB3 is phosphorylated on tyrosine residues by the activated ErbB kinase (1,2). There are at least 9 potential tyrosine phosphorylation sites in the carboxy-terminal tail of ErbB3. These sites serve as consensus binding sites for signal transducing proteins, including Src family members, Grb2 and the p85 subunit of PI3 kinase, which mediate ErbB-downstream signaling (3). Both Tyr1222 and Tyr1289 of ErbB3 reside within a YXXM motif and participate in signaling to PI3 kinase (4).

ErbB3 is highly expressed in many cancer cells (5) and activation of the ErbB3/PI3 kinase pathway is correlated with malignant phenotypes of adenocarcinomas (6). In tumor development, ErbB3 may function as an oncogenic unit together with other ErbB members, e.g. ErbB2 requires ErbB3 to drive breast tumor cell proliferation (7). Thus, prevention of the interaction between ErbB3 and ErbB tyrosine kinases has become a novel anti-tumor strategy.

**Specificity/Sensitivity:** Phospho-HER3/ErbB3 (Tyr1197) (C56E4) Rabbit mAb detects endogenous HER3/ErbB3 protein only when phosphorylated at Tyr1197. The antibody does not cross-react with other phosphorylated receptor tyrosine kinases.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1197 of human HER3/ErbB3.

**Applications Key:**

- Applications: HER3/ErbB3
- Species: Human, Mouse, Rat, Canine, Porcine, Horse, Rat, Chicken, D. melanogaster
- Species Enclosed in Parentheses: Predicted to react based on 100% homology
- All: Wild type, Human, Mouse, Rat, Canine, Porcine, Horse

**Recommended Antibody Dilutions:**

Western Blotting 1:1000

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

**Background References:**


**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at −20°C. Do not aliquot the antibody.

**Species cross-reactivity is determined by western blot.**

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western Blotting 1:1000

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

**Please visit www.cellsignal.com for a complete listing of recommended companion products.**

**Entrez-Gene ID # 2065**

**Swiss-Prot Acc. # P21860**

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.