**Phospho-HER4/ErbB4 (Tyr1284) (21A9) Rabbit mAb**

For Research Use Only. Not For Use In Diagnostic Procedures.

**Background:** The HER/ErbB receptor tyrosine kinase family has been implicated in normal development, cardiac function and cancer (1,2). HER4/ErbB4, like other family members, has four ectodomains, a single transmembrane domain and a cytoplasmic tail containing the active tyrosine kinase domain (3). By binding to neuregulins and/or EGF family ligands, ErbB4 forms either a homodimer or heterodimer with other ErbB family members, which results in receptor activation and signaling (3). ErbB4 is ubiquitously expressed with the highest expression occurring in brain and heart. The expression of ErbB4 in breast cancer, pediatric brain cancer and other types of carcinomas has been reported suggesting that ErbB4 expression is involved in both normal tissue development and carcinogenesis (3).

**Specificity/Sensitivity:** Phospho-HER4/ErbB4 (Tyr1284) (21A9) Rabbit mAb detects endogenous levels of HER4/ErbB4 protein only when phosphorylated on Tyr1284. This antibody does not cross-react with other ErbB family members.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1284 of human HER4/ErbB4.

**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.

For a complete listing of recommended companion products please visit www.cellsignal.com.

**Applications**
- Western
- Immunoprecipitation
- Immunohistochemistry
- Chromatin Immunoprecipitation
- Immunofluorescence
- Flow cytometry
- ELISA-Peptide

**Species Cross-Reactivity**
- Human
- Mouse
- Rat
- Hamster
- Monkey
- Mink
- Chicken
- D. melanogaster
- Xenopus
- Zebrafish
- Bovine

**Molecular Wt.**
- 180 kDa

**Isotype**
- Rabbit IgG**

**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.

**U.S. Patent No. 5,675,063**

**Entrez-Gene ID #2066**
**UniProt ID #Q15303**

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