

#3790 Store at -20°C

# Phospho-HER4/ErbB4 (Tyr984) Antibody



- Small 100 µl (10 western blots)
- Petite 40 µl (4 western blots)

**Orders** ■ 877-616-CELL (2355)  
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**Support** ■ 877-678-TECH (8324)  
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rev. 07/14/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

**Entrez-Gene ID** #2066  
**Swiss-Prot Acc.** #Q15303

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, (M, R)	180 kDa	Rabbit**

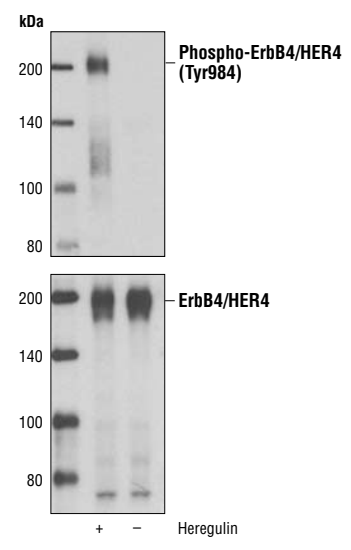
**Background:** The HER/ErbB receptor tyrosine kinase family has been implicated in normal development, cardiac function and cancer (1,2). HER4/ErbB4, like other family members, has four ectodomains, a single transmembrane domain and a cytoplasmic tail containing the active tyrosine kinase domain (3). 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 (Tyr984) Antibody detects endogenous levels of HER4/ErbB4 protein only when phosphorylated on Tyr984. This antibody may cross-react with other tyrosine-phosphorylated proteins.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr984 of human HER4/ErbB4. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

- Holbro, T. and Hynes, N.E. (2004) *Annu Rev Pharmacol Toxicol* 44, 195–217.
- Roskoski, R. (2004) *Biochem Biophys Res Commun* 319, 1–11.
- Carpenter, G. (2003) *Exp Cell Res* 284, 66–77.



Western blot analysis of extracts from T-47D cells, untreated or heregulin-stimulated, using Phospho-HER4/ErbB4 (Tyr984) Antibody (upper) and HER4/ErbB4 (111B2) Rabbit mAb (lower) (#4795).

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. 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.

**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.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.