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#3790

Phospho-HER4/ErbB4 (Tyr984)/EGFR (Tyr978) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 180	Source/Isotype: Rabbit	UniProt ID: #Q15303	Entrez-Gene Id: 2066
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

Phospho-HER4/ErbB4 (Tyr984)/EGFR (Tyr978) Antibody detects endogenous levels of HER4/ErbB4 protein only when phosphorylated on Tyr984 and EGFR only when phosphorylated on Tyr978. This antibody may cross-react with other tyrosine-phosphorylated proteins.

Species predicted to react based on 100% sequence homology

Mouse, Rat

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

Research studies have implicated the HER/ErbB receptor tyrosine kinase family 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 in research studies suggesting that ErbB4 expression is involved in both normal tissue development and carcinogenesis (3).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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