



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#4757

Phospho-HER4/ErbB4 (Tyr1284)/EGFR (Tyr1173) (21A9) Rabbit mAb

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
---------------------------	-------------------------	-----------------------------------	-------------------------	----------------------------------	-------------------------------	--------------------------------

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	Phospho-HER4/ErbB4 (Tyr1284)/EGFR (Tyr1173) (21A9) Rabbit mAb detects endogenous levels of HER4/ErbB4 protein only when phosphorylated on Tyr1284 and EGFR only when phosphorylated on Tyr1173. This antibody may cross-react with other tyrosine-phosphorylated proteins.	
Species predicted to react based on 100% sequence homology	Mouse, Rat	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1284 of human HER4/ErbB4.	
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	<ol style="list-style-type: none"> Holbro, T. and Hynes, N.E. (2004) <i>Annu Rev Pharmacol Toxicol</i> 44, 195-217. Roskoski, R. (2004) <i>Biochem Biophys Res Commun</i> 319, 1-11. Carpenter, G. (2003) <i>Exp Cell Res</i> 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
Trademarks and Patents	Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.
Limited Uses	Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect. Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any

purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.