

#5616 Store at +4°C

## EGF Receptor (D38B1) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate)



**Cell Signaling**  
TECHNOLOGY®

**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

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

<b>Applications:</b> IF-IC, FC-FP	<b>Reactivity:</b> H M Mk	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P00533	<b>Entrez-Gene Id:</b> 1956
--------------------------------------	------------------------------	-----------------------------------	--------------------------------------	-------------------------------	--------------------------------

<b>Product Usage Information</b>	<b>Application</b> Immunofluorescence (Immunocytochemistry) Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:200 1:50
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity / Sensitivity</b>	EGF Receptor (D38B1) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate) detects endogenous levels of total EGF receptor protein. The antibody does not cross-react with other proteins of the ErbB family. Species cross-reactivity by IF-IC is human only.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a fusion protein containing the cytoplasmic domain of human EGF receptor protein.	
<b>Product Description</b>	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometry and immunofluorescent analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated EGF Receptor (D38B1) XP® Rabbit mAb #4267 although species cross-reactivity by IF-IC is human only.	
<b>Background</b>	<p>The epidermal growth factor (EGF) receptor is a transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Ligand binding results in receptor dimerization, autophosphorylation, activation of downstream signaling, internalization, and lysosomal degradation (1,2). Phosphorylation of EGF receptor (EGFR) at Tyr845 in the kinase domain is implicated in stabilizing the activation loop, maintaining the active state enzyme, and providing a binding surface for substrate proteins (3,4). c-Src is involved in phosphorylation of EGFR at Tyr845 (5). The SH2 domain of PLCγ binds at phospho-Tyr992, resulting in activation of PLCγ-mediated downstream signaling (6). Phosphorylation of EGFR at Tyr1045 creates a major docking site for the adaptor protein c-Cbl, leading to receptor ubiquitination and degradation following EGFR activation (7,8). The GRB2 adaptor protein binds activated EGFR at phospho-Tyr1068 (9). A pair of phosphorylated EGFR residues (Tyr1148 and Tyr1173) provide a docking site for the Shc scaffold protein, with both sites involved in MAP kinase signaling activation (2). Phosphorylation of EGFR at specific serine and threonine residues attenuates EGFR kinase activity. EGFR carboxy-terminal residues Ser1046 and Ser1047 are phosphorylated by CaM kinase II; mutation of either of these serines results in upregulated EGFR tyrosine autophosphorylation (10).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Hackel, P.O. et al. (1999) <i>Curr Opin Cell Biol</i> 11, 184-9.</li> <li>Zwick, E. et al. (1999) <i>Trends Pharmacol Sci</i> 20, 408-12.</li> <li>Cooper, J.A. and Howell, B. (1993) <i>Cell</i> 73, 1051-4.</li> <li>Hubbard, S.R. et al. (1994) <i>Nature</i> 372, 746-54.</li> <li>Biscardi, J.S. et al. (1999) <i>J Biol Chem</i> 274, 8335-43.</li> <li>Emlet, D.R. et al. (1997) <i>J Biol Chem</i> 272, 4079-86.</li> <li>Levkowitz, G. et al. (1999) <i>Mol Cell</i> 4, 1029-40.</li> <li>Ettenberg, S.A. et al. (1999) <i>Oncogene</i> 18, 1855-66.</li> <li>Rojas, M. et al. (1996) <i>J Biol Chem</i> 271, 27456-61.</li> <li>Feinmesser, R.L. et al. (1999) <i>J Biol Chem</i> 274, 16168-73.</li> </ol>	

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

**Applications Key** **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

## Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

The manufacture, use, sale and import of this product is within the scope of one or more intellectual property rights (including patents and patent applications) owned or controlled by Cell Signaling Technology. The purchase of this product conveys to the buyer a non-transferrable right to use the purchased product only in research conducted by the buyer. The sale of the product is expressly conditioned on the buyer not using the products or its components (1) to analyze or reverse engineer the product for its chemical/physical properties and composition (including e.g., identification of the sequence); (2) in manufacturing; (3) to provide a service, information, or data to an unaffiliated third party for payment; (4) for therapeutic, diagnostic or prophylactic purposes; (5) resale, whether or not such product are resold for use in research; or for any other commercial purpose. For information on purchasing a license to this product for purposes other than research, contact Cell Signaling Technology, Inc. Business Development at busdev@cellsignal.com.

This product is provided under an intellectual property license from Life Technologies Corporation. The transfer of this product is conditioned on the buyer using the purchased product solely in research conducted by the buyer, excluding contract research or any fee for service research, and the buyer must not (1) use this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; or (c) manufacturing or quality assurance or quality control, and/or (2) sell or transfer this product or its components for resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://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.