

#5354 Store at -20°C

# EGF Receptor (L858R Mutant Specific) (43B2) Rabbit mAb (Biotinylated)


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| <b>Applications:</b><br>WB | <b>Reactivity:</b><br>H | <b>Sensitivity:</b><br>Endogenous | <b>MW (kDa):</b><br>175 | <b>Source/Isotype:</b><br>Rabbit IgG | <b>UniProt ID:</b><br>#P00533 | <b>Entrez-Gene Id:</b><br>1956 |
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| <b>Product Usage Information</b> | <b>Application</b><br>Western Blotting   | <b>Dilution</b><br>1:1000 |
| <b>Storage</b>                   | Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibodies.  |                           |
| <b>Specificity / Sensitivity</b> | EGFR (L858R Mutant Specific) (43B2) Rabbit mAb (Biotinylated) detects endogenous levels of EGFR mutant L858R protein. The antibody may cross-react with wildtype EGFR and other HER family members when highly over-expressed. Careful titration of this antibody may be required to obtain optimal specificity. |                           |
| <b>Source / Purification</b>     | Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to L858R mutant sequence of human EGF receptor.   |                           |
| <b>Product Description</b>       | This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated EGFR (L858R Mutant Specific) (43B2) Rabbit mAb #3197.   |                           |

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| MW (kDa) | 175 |
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| <b>Background</b>            | The epidermal growth factor (EGF) receptor is a 170 kDa transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Research studies have shown that somatic mutations in the tyrosine kinase domain of EGF receptor (EGFR) are present in a subset of lung adenocarcinomas that respond to EGFR inhibitors, such as gefitinib and erlotinib (1-3). Two types of mutations account for approximately 90% of mutated cases: a specific point mutation, L858R, that occurs in exon 21 and short in-frame deletions in exon 19 (4,5). The most frequent exon 19 deletion is E746-A750, accounting for 90% of lesions at this site, although some rare variants occur. |
| <b>Background References</b> | 1. Lynch, T.J. et al. (2004) <i>N Engl J Med</i> 350, 2129-39.<br>2. Pao, W. et al. (2004) <i>Proc Natl Acad Sci USA</i> 101, 13306-11.<br>3. Haber, D.A. et al. (2005) <i>Cold Spring Harb Symp Quant Biol</i> 70, 419-26.<br>4. Kosaka, T. et al. (2004) <i>Cancer Res</i> 64, 8919-23.<br>5. Riely, G.J. et al. (2006) <i>Clin Cancer Res</i> 12, 7232-41.   |

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| <b>Species Reactivity</b>     | Species reactivity is determined by testing in at least one approved application (e.g., western blot).   |
| <b>Western Blot Buffer</b>    | 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.   |
| <b>Applications Key</b>       | <b>WB:</b> Western Blotting  |
| <b>Cross-Reactivity Key</b>   | <b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster<br><b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse<br><b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected |
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