

Store at
-20°C
#2085

EGF Receptor (E746-A750del Specific) (D6B6) XP® Rabbit mAb

100 µl (10 western blots)

www.cellsignal.com

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Entrez-Gene ID #1956
UniProt ID #P00533

rev. 06/25/14

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IHC-P, IF-IP, IF-IC, F Endogenous	H	175 kDa	Rabbit IgG**

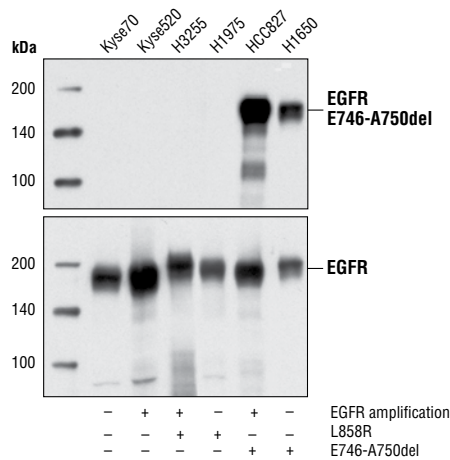
Background: The epidermal growth factor (EGF) receptor is a 170 kDa transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Research studies have shown that somatic mutations in the tyrosine kinase domain of EGF receptor (EGFR) are present in a subset of lung adenocarcinomas that respond 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.

Specificity/Sensitivity: EGF Receptor (E746-A750del Specific) (D6B6) XP® Rabbit mAb detects endogenous levels of EGFR E746-A750del mutant protein.

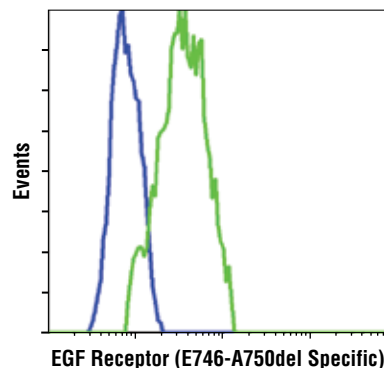
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to E746-A750del mutant sequence of human EGFR.

Background References:

- (1) Lynch, T.J. et al. (2004) *N Engl J Med* 350, 2129-39.
- (2) Pao, W. et al. (2004) *Proc Natl Acad Sci USA* 101, 13306-11.
- (3) Haber, D.A. et al. (2005) *Cold Spring Harb Symp Quant Biol* 70, 419-26.
- (4) Kosaka, T. et al. (2004) *Cancer Res* 64, 8919-23.
- (5) Riely, G.J. et al. (2006) *Clin Cancer Res* 12, 7232-41.



Western blot analysis of extracts from various EGFR expressing cell lines, showing the specificity of detection of mutant EGFR (E746-A750del) protein, using EGF Receptor (E746-A750del Specific) (D6B6) XP® Rabbit mAb (upper), and total EGFR control antibody (lower).



Flow cytometric analysis of Kyse450 cells (wildtype, blue) and HCC827 cells (exon 19 deletion E746-A750del, green) using EGF Receptor (E746-A750del Specific) (D6B6) XP® Rabbit mAb.

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
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:100
Unmasking buffer:	EDTA
Antibody diluent:	SignalStain® Antibody Diluent #8112
Immunofluorescence (IF-P)	1:250
Immunofluorescence (IF-IC)	1:250
Flow Cytometry	1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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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.

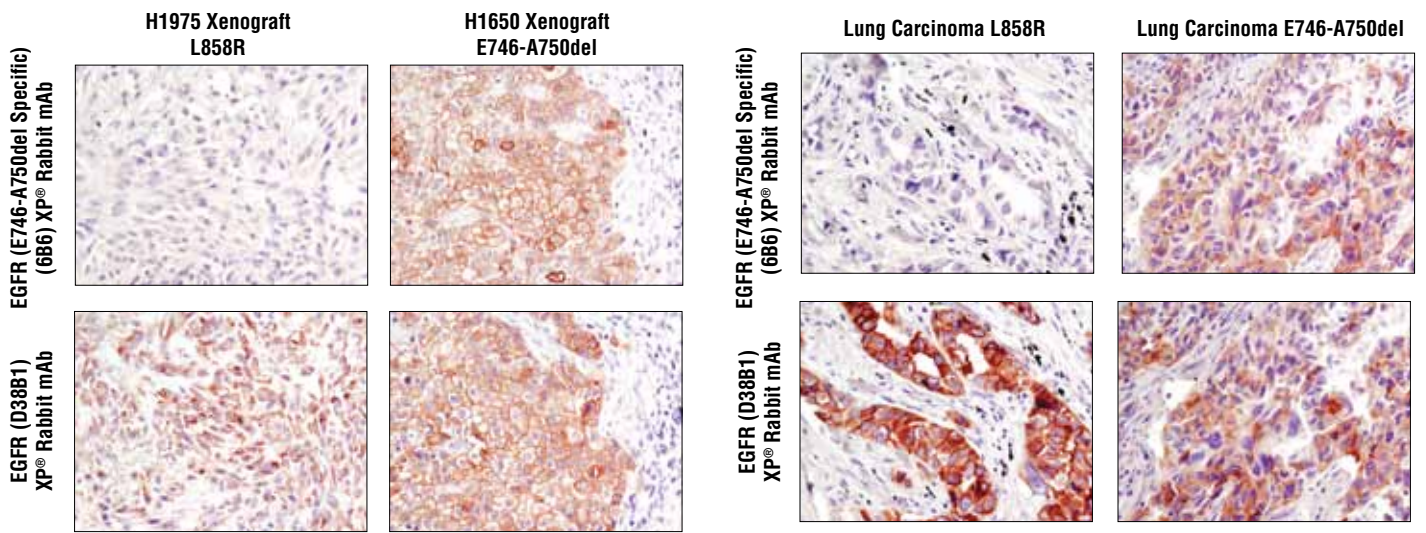
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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken 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.

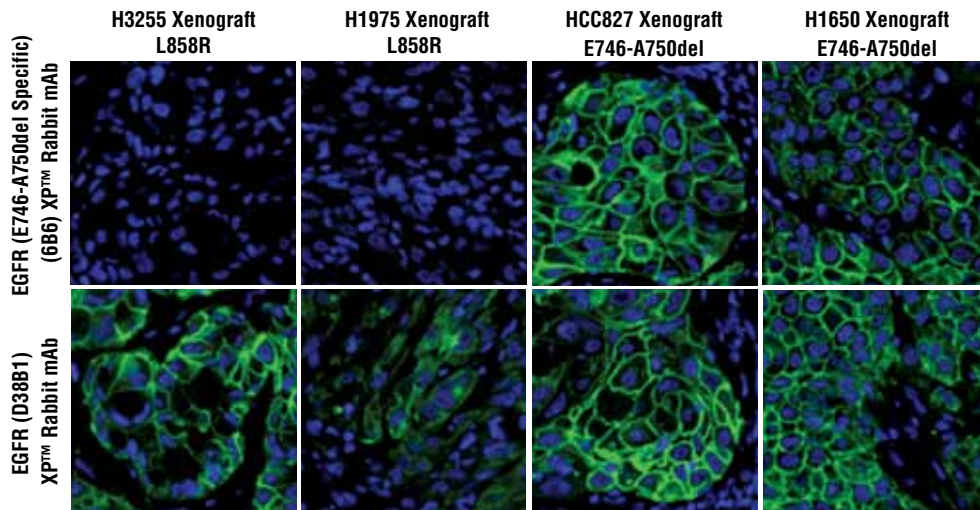


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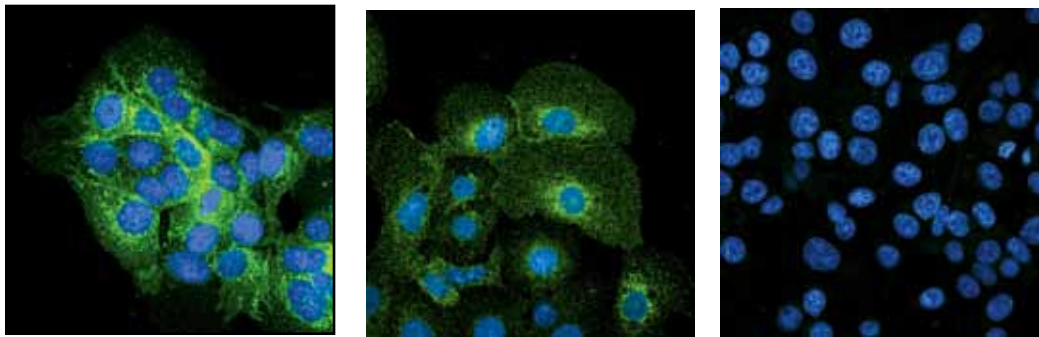


Immunohistochemical analysis of paraffin-embedded H1975 (left, EGFR L858R positive) and H1650 xenografts (right, EGFR deletion positive) using EGF Receptor (E746-A750del Specific) (D6B6) XP[®] Rabbit mAb (upper) and total EGFR (D38B1) XP[®] Rabbit mAb #4267 (lower).

Immunohistochemical analysis of paraffin-embedded human lung carcinoma of known mutational status using EGF Receptor (E746-A750del Specific) (D6B6) XP[®] Rabbit mAb (upper) and total EGFR (D38B1) XP[®] Rabbit mAb #4267 (lower). EGFR L858R positive lung (left), EGFR deletion positive lung sections (right).



Confocal immunofluorescent analysis of paraffin-embedded H3255, H1975, HCC827 and H1650 xenografts using EGF Receptor (E746-A750del Specific) (D6B6) XP[™] Rabbit mAb (upper, green) and EGFR (D38B1) XP[™] Rabbit mAb #4267 (lower, green). Blue pseudocolor = DRAQ5[®] #4084 (fluorescent DNA dye).



Confocal immunofluorescent analysis of HCC827, H1650 and Kyse450 cells using EGF Receptor (E746-A750del Specific) (D6B6) XP[™] Rabbit mAb (green). Blue pseudocolor = DRAQ5[®] #4084 (fluorescent DNA dye).