#12048 Store at -20°C

EREG (D4O5I) Rabbit mAb

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 09/17/14

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

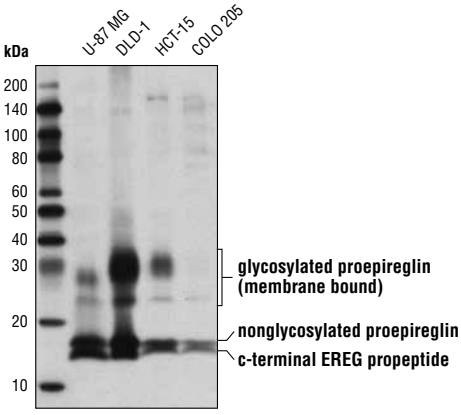
Entrez-Gene ID #2069
Swiss-Prot Acc. #O14944

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H	17,19, 30 kDa	Rabbit IgG**

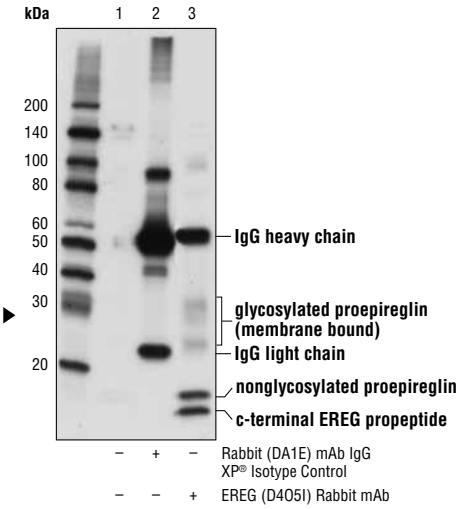
Background: Epiregulin (EREG) belongs to the epidermal growth factor (EGF) family and is a ligand for the EGF receptor (EGFR) and ErbB4 (1-3). The binding of EREG to homodimers, as well as heterodimers containing EGFR or ErbB4 leads to receptor activation and downstream signaling to promote cell growth and proliferation (4-6). In normal human tissue, moderate levels of EREG are expressed in the placenta and peripheral blood macrophages. Research studies have shown that EREG is expressed at high levels in numerous cancer cell lines, and EREG expression is correlated with primary cancer aggresiveness/metastases (7-11). In addition to its involvement in tumorigenesis, a variant of EREG has also been shown to be associated with tuberculosis susceptibility (12). EREG is synthesized as a ~30 kDa glycosylated membrane bound proepiregulin form (19 kDa when not glycosylated) and through subsequent proteolytic cleavage is processed to a 17 kDa C-terminal propeptide, and the 6kDa mature form of epiregulin (13)..

Specificity/Sensitivity: EREG (D4O5I) Rabbit mAb recognizes endogenous levels of proepiregulin and the C-terminal propeptide of the EREG protein. It does not recognize the mature form of EREG.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu155 of human EREG protein.



Western blot analysis of extracts from various cell lines using EREG (D4O5I) Rabbit mAb.



Immunoprecipitation of EREG from COLO 205 cell extracts using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or EREG (D4O5I) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using EREG (D4O5I) Rabbit mAb.

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.*

***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

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

Background References:

(1) Olayioye, M.A. et al. (2000) *EMBO J* 19, 3159-67.
(2) Shelly, M. et al. (1998) *J Biol Chem* 273, 10496-505.
(3) Komurasaki, T. et al. (1997) *Oncogene* 15, 2841-8.
(4) Komurasaki, T. et al. (2002) *Growth Factors* 20, 61-9.
(5) Shirakata, Y. et al. (2000) *J Biol Chem* 275, 5748-53.
(6) Toyoda, H. et al. (1995) *J Biol Chem* 270, 7495-500.
(7) Toyoda, H. et al. (1997) *Biochem J* 326 (Pt 1), 69-75.
(8) Zhu, Z. et al. (2000) *Biochem Biophys Res Commun* 273, 1019-24.
(9) Kuramochi, H. et al. (2012) *BMC Cancer* 12, 88.
(10) Zhang, J. et al. (2008) *Cancer Prev Res (Phila)* 1, 201-7.
(11) Sunaga, N. et al. (2012) *Oncogene* , .
(12) Thuong, N.T. et al. (2012) *Genes Immun* 13, 275-81.
(13) Baba, I. et al. (2000) *Cancer Res* 60, 6886-9.

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.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **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.