Mouse (monoclonal) anti-EGFR [npY1173]

PRODUCT ANALYSIS SHEET

Catalog Number:	44794M
Volume:	50 µL
Clone Number:	20G3
Isotype:	IgG1 (mouse)
Form of Antibody:	Mouse monoclonal immunoglobulin in PBS, pH 7.3, with PEG and Sucrose
Preservative:	0.09% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	The antibody was purified from serum-free cell culture supernatant by subsequent thiophilic adsorption and size exclusion chromatography.
Immunogen:	Synthetic peptide derived from the region of EGFR containing tyrosine 1173 (dephosphorylated), conjugated to KLH.
Target Summary:	Epidermal growth factor receptors (EGFRs/ErbBs) are activated upon binding of EGF and EGF-related growth factors such as TGFα, β-cellulin, Hb-EGF, HRG or NRG. Binding of these ligands leads to receptor homo- and hetero-dimerization followed by autophosphorylation and activation of downstream signal transduction pathways (MAPK, PI3K/Akt and STAT). In addition, EGFR becomes fully activated after phosphorylation of tyrosine 845 by Src family kinases. Phosphorylation of tyrosine 1045 leads to association with CBL and subsequent receptor degradation. Phosphorylation of serine 1047 by CamK II leads to attenuation of kinase activity; phosphorylation of threonine 654 (by PKC) and threonine 669 (by MAPK, p38) interferes with receptor endocytosis/recycling.
Specificity:	This Mab specifically recognizes non-activated EGFR when dephosphorylated at tyrosine 1173 in it's NAEYLRV peptide motif (180 kDa). It does not interact with the activated EGFR phosphorylated at tyrosine 1173.
Species Reactivity:	Human and Mouse.
Applications:	The antibody is suitable for Western blotting, ELISA, Immunoprecipitation and Immunocytochemistry. Other applications may be possible but have not been tested.
Suggested Working Dilutions:	Immunoblotting: 1 µg/mL for HRP/ECL detection; ELISA: 0.05 µg/mL; Immunoprecipitation: 1 - 10 µg per 10^6 vanadate treated A431 cells; Immunocytochemistry: 1-10 µg/mL. The optimal antibody concentration should be determined empirically for each specific application.
Recommended Positive Control:	Cell lysate from untreated HepG2 cells.
Storage:	Upon arrival, we recommend a brief centrifugation before opening to settle vial contents. Then, apportion the antibody into working aliquots and store at –20°C. **Avoid repeated freeze / thaw cycles.**
Expiration Date:	Expires one year from date of receipt when stored as instructed.

This product is for research use only. Not for use in diagnostic procedures.

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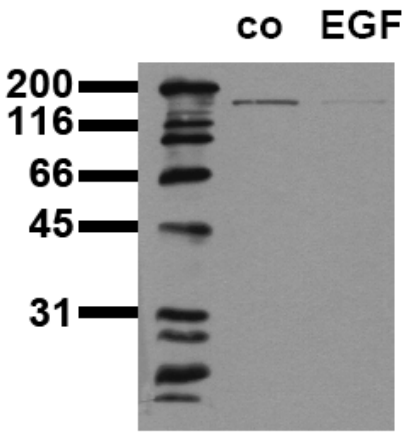

Western Blotting

Extracts of human A431 cells untreated (co) or treated with EGF (EGF) (approximately 20,000 cells per lane), were resolved by SDS-PAGE and transferred to PVDF. The membrane was blocked with a casein/Tween 20 buffer then incubated with the Mab at 0.5 µg/mL for 1 hour at room temperature. After washing, the membrane was incubated with an anti-mouse HRP-conjugated secondary antibody and signals were detected using an ECL detection method (exposure time: 30 seconds).

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