anti-EGFR

Cat #: HM1123
Mouse monoclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND
Epidermal Growth factor receptor (EGFR) is the prototype member of the type 1 receptor tyrosine kinases. It has an extracellular ligand binding domain, a single transmembrane region, and cytoplasmic domain which is composed of a tyrosine kinase domain and a carboxy terminal domain. Several additional members of the EGF/TGFα family of ligands have been described. These include cripto, amphiregulin and the heparin-binding EGF-like growth factor. Other members of the EGF receptor family include HER2 (ErbB-2, Neu) and HER3 (ErbB-3). EGFR over expression is observed in many tumors and EGFR over expression in tumors indicates poor prognosis. The carboxy terminal tyrosine residues on EGFR, Tyr 1068 and Tyr 1173 are the major sites of autophosphorylation, which occurs as a result of EGF binding. Once activated, EGFR mediates the binding of the phosphotyrosine binding (PTB) domain of Grb2 through direct interactions with Tyr 1068 and Tyr 1086 and through indirect interactions with Tyr 1173 in the Ras signaling pathway. Tyr 1173 of EGFR also functions as a kinase substrate. Phosphorylation of Tyr 992, Tyr 1068 and Tyr 1086 is required for conformational change in the C-terminal tail of the EGF receptor.

SPECIFICITY
This antibody reacts with the EGF receptor protein of mouse, rat and human origin by Western blotting, immunoprecipitation and immunohistochemistry (including paraffin-embedded sections).

Molecular Weight of EGFR: 170 kDa. Western blotting positive control: A-431 cells.

IMMUNOGEN
A peptide at the carboxy terminus of human EGF receptor.

STORAGE
This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES
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