**BACKGROUND**

Epidermal growth factor mediates its effects on cell growth through its interaction with a cell surface glycoprotein designated the EGF receptor. Binding of EGF or TGFα to the EGF receptor activates tyrosine-specific protein kinase activity intrinsic to the EGF receptor. 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: EGFR (human) mapping to 7p11.2; Egfr (mouse) mapping to 11A2.

**SOURCE**

p-EGFR (1H9) is a mouse monoclonal antibody raised against synthetic phosphopeptide corresponding to amino acid residues surrounding Ser 1047 of EGFR of human origin.

**PRODUCT**

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

**STORAGE**

Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

p-EGFR (1H9) is recommended for detection of Ser 1047 phosphorylated EGFR of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:100-1:500).


Molecular Weight of p-EGFR: 170 kDa.


**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.