

EGFR Phospho-Regulation Antibody Sampler Kit

Catalog # EK6160

Kit Components:

Catalog#	Description	Type	Size	Applications	Species Reactivity	MW (kDa)
EP1931	EGFR (Ser-1142), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	180
EP1911	EGFR (Ser-967), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	180
EM1991	EGFR (Tyr-1101), phospho-specific	Mouse mAb	50 µl	WB, E, ICC	H, R, M	180
EP1871	EGFR (a.a. 961-972)	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	180
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 µl	WB, E		
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E		

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, AB = Antibody blocking. Species: H = Human, R = Rat, M = Mouse.

Kit Summary:

The EGFR phospho-regulation antibody sampler kit can be used to detect EGFR phosphorylation at Ser-1142, Ser-967, and Tyr-1101. The kit also includes an antibody to examine total EGFR expression levels, and secondary reagents for rabbit polyclonal and mouse monoclonal antibody detection.

Buffers and Storage:

Rabbit polyclonal and mouse monoclonal affinity-purified antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

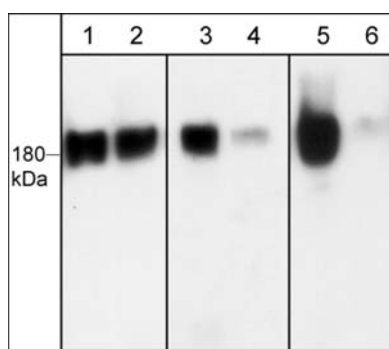
Secondary reagents are supplied in phosphate-buffered saline, 50% glycerol, and 1 mg/ml BSA. Store at -20°C. Do not aliquot. Stable for 1 year.

Background:

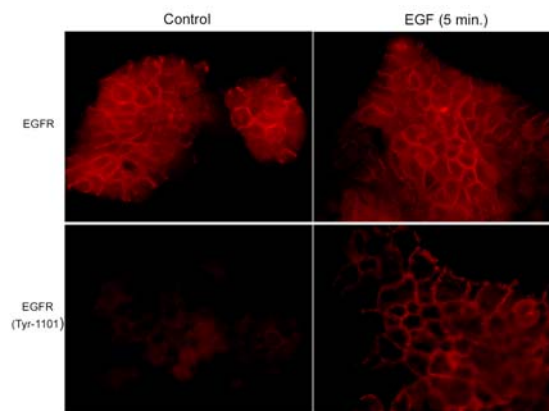
The epidermal growth factor receptor (EGFR) is a transmembrane glycoprotein with an extracellular ligand-binding domain and a cytoplasmic domain with intrinsic tyrosine kinase activity. The cytoplasmic domain has a C-terminal region with multiple autophosphorylation sites (Tyr-992, 1068, 1086, 1148, and 1173). These sites are important for downstream signaling and rapid internalization. In addition, EGFR activation leads to c-Src mediated phosphorylation of Tyr-845 and Tyr-1101. The former site is required for mitogenic responses to EGFR activation, while the latter may be an SH2 binding site. Phosphorylation of EGFR on serine and threonine residues is thought to represent a mechanism for regulation of receptor kinase activity and internalization. These sites include a PKC site (Thr-654), CAMKII sites (Ser-1046, 1047, 1057, and 1142), and constitutively phosphorylated sites (Ser-967 and Ser-1002). Thus, the regulation of EGFR activity involves a complex series of phosphorylation events at multiple sites throughout the intracellular portion of the receptor.

References:

Carpenter, G. (2000) Bioessays 22:697.
Boeri Erba, E. et al. (2005) Mol. Cell. Prot. 4:1107.



Western blot image of human A431 cells treated with Calyculin A (100 nM) for 30 min. Blot lanes were untreated (lanes 1, 3, & 5) or treated with lambda phosphatase (lanes 2, 4, & 6) then probed with anti-EGFR (a.a. 961-972) (lanes 1 & 2), anti-EGFR (Ser-967) (lanes 3 & 4), or anti-EGFR (Ser-1142) (lanes 5 & 6).



Immunocytochemical labeling in A431 cells untreated or treated with EGF (100 ng/ml) for 5 min. The cells were labeled with anti-EGFR or anti-EGFR (Tyr-1101) monoclonal antibodies, then detected using appropriate secondary antibody conjugated to Cy3.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

www.ecmbiosciences.com
telephone: 859-879-2075
toll-free: 1-800-859-8202
info@ecmbiosciences.com

ECMBiosciences