

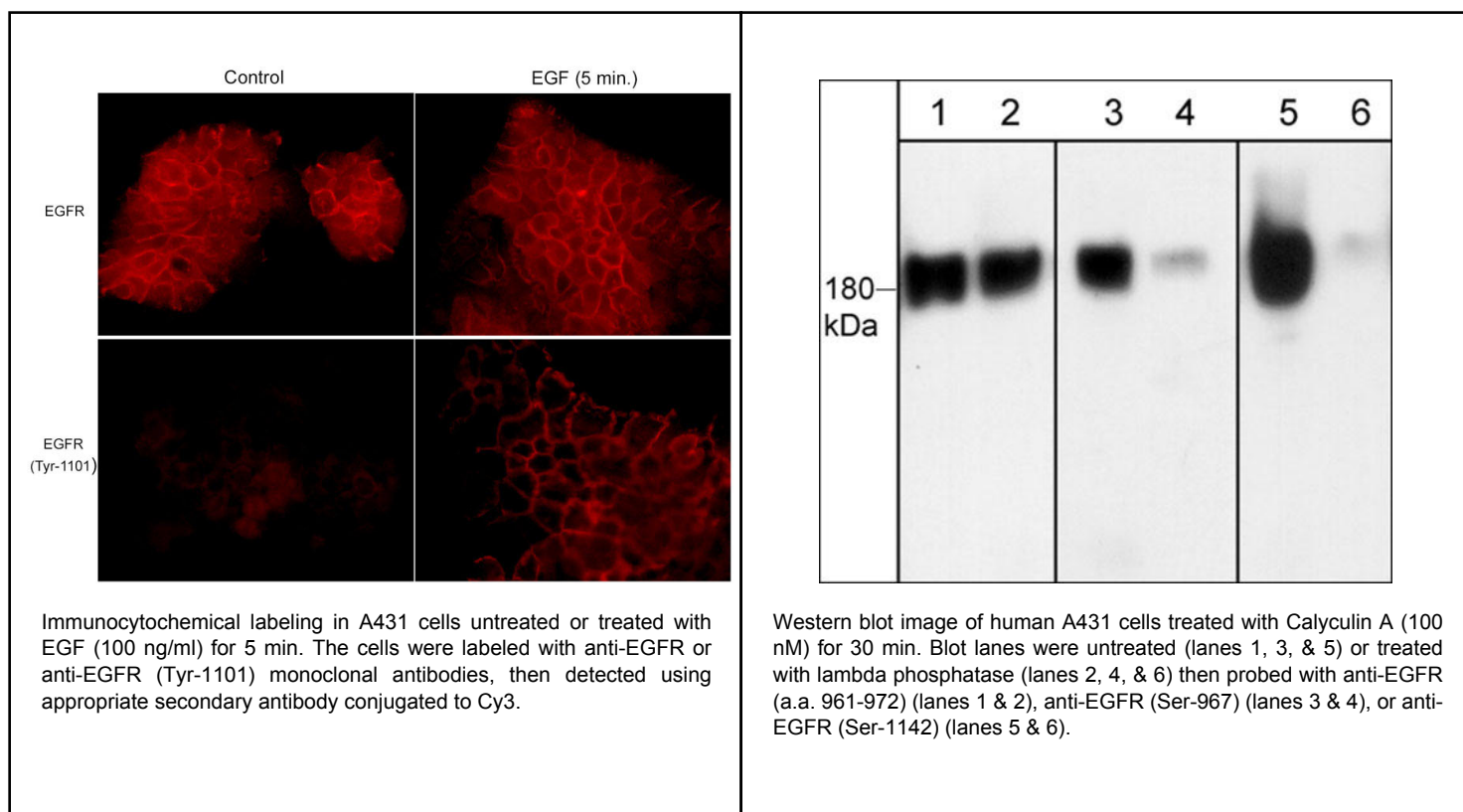
Kit Summary

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.

Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
EP1871	EGFR (a.a. 961-972)	Rabbit pAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
EP1931	EGFR (Ser-1142), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
EP1911	EGFR (Ser-967), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
EM1991	EGFR (Tyr-1101), phospho-specific	Mouse mAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 µl	WB, E	Ms	1:5000
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E, ICC, IHC	Rb	1:5000

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IP = Immunoprecipitation, IHC = Immunohistochemistry, FC = Flow Cytometry
Species: H = Human, R = Rat, Ms = Mouse, C = Chicken, F = Fish, Fr = Frog, Rb = Rabbit



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

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.

Background References

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

Buffer and Storage

Mouse monoclonal and rabbit polyclonal antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. The secondary reagents are supplied in the same buffer without azide. Store all at -20°C . Stable for 1 year.

Product Citations

<u>Cat. #</u>	<u>Citation & Application</u>
EP1871	Choi, S. et al. (2012) Am J Pathol. 180(1):410. (WB: mouse skeletal muscle)
EP1871	Kolegraff, K et al. (2011) Mol Biol Cell. 22(8):1121. (WB: SKCO15)
EP1931	Jhaveri, T.J. et al. (2015) Oncotarget. 6(17):14754 (WB: HCC1806 cells)
EP1931	Kamekura, R. et al. (2014) Oncogene. 33(36): 4531. (WB: human SK-CO15)
EM1991	Solis, NV et al. (2017) MBio. 8(2). pii: e00025-17. (WB: human oral epithelial cells)
MS3001	Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western blot: MDCK epithelial, A549, and HEK293)
RS3251	Kawasaki, H. et al. (2013) World J Gastroenter. 19(17):2629. (WB, ICC: mouse intestinal myofibroblasts and
RS3251	Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western blot)

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