

**Anti-EGFR (Ser-1142), Phosphospecific Antibody**  
Catalog # AN1769**Specification****Anti-EGFR (Ser-1142), Phosphospecific Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P00533</a>
Reactivity	Bovine
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	134277

**Anti-EGFR (Ser-1142), Phosphospecific Antibody - Additional Information**

Gene ID	1956
<b>Other Names</b>	
EGF, Epidermal, ErbB	

**Target/Specificity**

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.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Anti-EGFR (Ser-1142), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

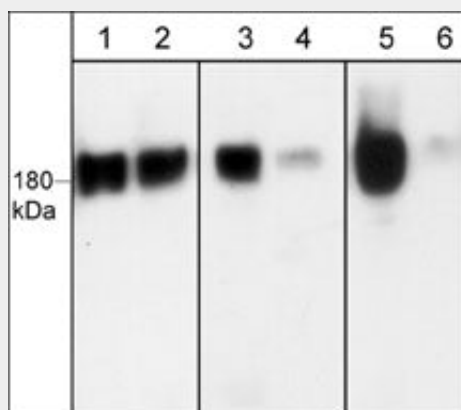
Blue Ice

**Anti-EGFR (Ser-1142), Phosphospecific Antibody - Protocols**

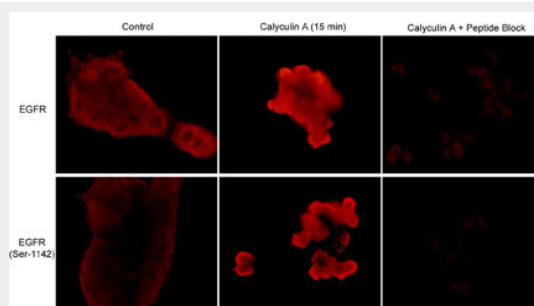
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-EGFR (Ser-1142), Phosphospecific Antibody - Images



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 were probed with anti-EGFR (a.a. 961-972) (lanes 1 & 2), anti-EGFR (Ser-967) (lanes 3 & 4), and anti-EGFR (Ser-1142) (lanes 5 & 6).



Immunocytochemical labeling in A431 cells untreated or treated with Calyculin A (50 nM) for 15 min. Cells were labeled with anti-EGFR (a.a. 961-972) or anti-EGFR (Ser-1142) antibodies. The specificity of labeling was demonstrated for each antibody by blocking the signals with their respective blocking peptides, EGFR (a.a. 961-972) (EX1875) and phospho-EGFR (Ser-1142) (EX1935).

### Anti-EGFR (Ser-1142), Phosphospecific Antibody - 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.