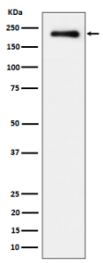
Phospho-EGFR (pTyr845) Antibody / Epidermal growth factor receptor [clone 31E45] (FY12249)

Catalog No.	Formulation	Size
FY12249	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31E45
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P00533
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This Phospho-EGFR (pTyr845) antibody is available for research use only.



Western blot analysis of Phospho-EGFR (pY869) expression in treated with EGF cell lysate using Phospho-EGFR (pTyr845) antibody.

Description

Phospho-EGFR (pTyr845) antibody detects epidermal growth factor receptor (EGFR) phosphorylated at tyrosine 845, a

modification within the activation loop of the kinase domain. EGFR is a receptor tyrosine kinase that regulates cell proliferation, differentiation, and survival. Phosphorylation at Tyr845 is mediated by Src family kinases rather than EGFR autophosphorylation, making it a unique regulatory site that influences EGFR's kinase activity and signaling specificity.

Research using Phospho-EGFR (pTyr845) antibody has revealed that phosphorylation at this site promotes receptor dimerization, kinase activation, and downstream signaling through pathways such as MAPK, PI3K-Akt, and STAT. Elevated Tyr845 phosphorylation has been observed in cancers including lung, colon, and breast, where it correlates with aggressive disease and poor prognosis. It is also linked to resistance to EGFR-targeted therapies, as tumors may exploit Src-mediated phosphorylation to bypass kinase inhibitors.

In cardiovascular research, EGFR phosphorylation at Tyr845 contributes to vascular smooth muscle proliferation and cardiac hypertrophy, linking it to pathological remodeling. In neurobiology, EGFR signaling modulates survival and differentiation of neural progenitor cells, with Tyr845 phosphorylation playing a supporting role in receptor function.

Antibodies specific for phospho-EGFR (pTyr845) are validated for immunohistochemistry, immunofluorescence, and western blot. These reagents selectively recognize the phosphorylated receptor, enabling assessment of EGFR activation in cancer and other disease states. By tracking Tyr845 phosphorylation, researchers can evaluate Src family kinase activity and responses to targeted inhibitors.

NSJ Bioreagents provides this Phospho-EGFR (pTyr845) antibody to support oncology, cardiovascular, and signaling research.

Application Notes

Optimal dilution of the Phospho-EGFR (pTyr845) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-EGFR (Y845) was used as the immunogen for the Phospho-EGFR (pTyr845) antibody.

Storage

Store the Phospho-EGFR (pTyr845) antibody at -20oC.