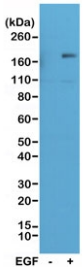
# Phospho-EGFR Antibody (pTyr1173) / EGFR Activation and Signaling Marker [clone RM269] (R20286)

| Catalog No. | Formulation | Size |
|---|---|---|
| R20286-0.1ML | Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide | 100 ul |

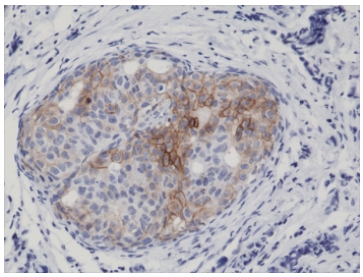
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | RM269 |
| **Purity** | Protein A purified from animal origin-free supernatant |
| **UniProt** | P00533 |
| **Gene ID** | 1956 |
| **Localization** | Cell membrane, cytoplasm |
| **Applications** | Immunohistochemistry (FFPE) : 1:500-1:1000 (1)<br>Western Blot : 1:1000-1:5000 |
| **Limitations** | This Phospho-EGFR Antibody (pTyr1173) / EGFR Activation and Signaling Marker is available for research use only. |




Phospho-EGFR Antibody A431 Stimulated WB. Western blot analysis of human A431 cell lysate untreated (-) or treated (+) with EGF using phospho-EGFR (Tyr1173) antibody, clone RM269. A band is detected at approximately 140-180 kDa in the EGF-treated sample, consistent with the predicted molecular weight of EGFR and its glycosylated forms. Signal is markedly increased following EGF stimulation, indicating phosphorylation of EGFR at Tyr1173 and confirming activation-dependent detection. Minimal signal is observed in the untreated sample, supporting specificity of the antibody for the phosphorylated form of EGFR.



IHC testing of FFPE human breast cancer tissue with recombinant phospho-EGFR antibody at 1:5000.

## Description

Epidermal growth factor receptor (EGFR), also known as ERBB1 or HER1, is a transmembrane receptor tyrosine kinase that regulates cell proliferation, survival, and differentiation through ligand-dependent activation. Phospho-EGFR Antibody (pTyr1173) is designed to specifically detect EGFR phosphorylated at tyrosine 1173, a key residue associated with receptor activation and downstream signaling. This site is one of the major autophosphorylation positions that mediates recruitment of adaptor proteins and propagation of intracellular signaling cascades. This Phos-EGFR antibody is part of our phosphorylated target antibody selection.

Upon binding of ligands such as epidermal growth factor (EGF), EGFR undergoes dimerization and autophosphorylation of multiple intracellular tyrosine residues, including Tyr1173. Phosphorylation at this site creates a docking platform for signaling molecules that initiate pathways such as MAPK, PI3K-AKT, and STAT signaling. Detection of phosphorylation at Tyr1173 therefore serves as a direct indicator of EGFR activation status rather than total receptor expression.

In contrast to total EGFR antibodies, phospho-specific antibodies provide insight into dynamic signaling events and receptor activation in response to extracellular stimuli. EGFR phosphorylation is tightly regulated and often transient, making it a valuable readout for ligand stimulation, pathway inhibition, and therapeutic response. Increased phosphorylation at Tyr1173 is commonly observed following EGF treatment and can be reduced by EGFR-targeted inhibitors, highlighting its importance in signaling studies.

EGFR activation plays a critical role in cancer biology, where dysregulated signaling contributes to tumor growth, survival, and resistance to therapy. Aberrant phosphorylation of EGFR is frequently observed in tumors with receptor overexpression or activating mutations. Monitoring phospho-EGFR levels allows researchers to assess pathway activation and evaluate the effectiveness of targeted treatments in both in vitro and in vivo systems.

Phospho-EGFR (Tyr1173) is typically detected in the cytoplasmic region of the receptor following activation, often accompanied by receptor internalization and trafficking to endosomal compartments. This dynamic localization reflects active signaling processes and receptor turnover. The use of a phospho-EGFR antibody enables precise analysis of receptor activation, making it a powerful tool for studies of signal transduction, drug response, and cancer progression.

Explore our EGFR Antibody (31G7) page for a broader view of EGFR expression and extensively validated antibody performance across applications.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the Phospho-EGFR Antibody (pTyr1173) / EGFR Activation and Signaling Marker may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

## Immunogen

A phospho-peptide corresponding to human phospho- EGFR (Tyr1173) was used as the immunogen for this recombinant Phospho-EGFR antibody.

## Storage

Store the Phospho-EGFR antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

## Alternate Names

Phospho-EGFR antibody, EGFR pTyr1173 antibody, EGFR Tyr1173 antibody, Phosphorylated EGFR antibody, ERBB1 phospho antibody, clone RM269 antibody