

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human EGFR when phosphorylated at Y1197 in direct ELISAs and Western blots. For Western blot applications, Catalog # <a href="#">MAB8058</a> is recommended.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 869286
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human EGFR Y1197 site Accession # P00533
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

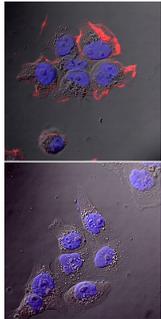
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Western Blot</b>	For Western blot applications, Catalog # <a href="#">MAB8058</a> is recommended.	

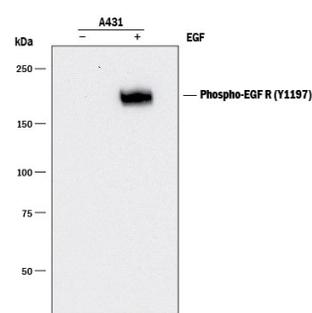
## DATA

### Immunocytochemistry



**Phospho-EGFR (Y1197) in A431 Human Cell Line.** EGFR phosphorylated at Y1197 was detected in immersion fixed A431 human epithelial carcinoma cell line treated (upper panel) or not (lower panel) with EGF (Catalog # [236-EG](#)) using Rat Anti-Human Phospho-EGFR (Y1197) Monoclonal Antibody (Catalog # MAB8274) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # [NL013](#)) and counterstained with DAPI (blue). Specific staining was localized to plasma membranes. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Western Blot



**Detection of Human Phospho-EGFR (Y1197) by Western Blot.** Western blot shows lysates of A431 human epithelial carcinoma cell line untreated (-) or treated (+) with 100 ng/mL Recombinant Human EGF (Catalog # [236-EG](#)) for 5 minutes. PVDF membrane was probed with 0.1 µg/mL of Rat Anti-Human Phospho-EGFR (Y1197) Monoclonal Antibody (Catalog # MAB8274) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # [HAF005](#)). A specific band was detected for Phospho-EGFR (Y1197) at approximately 190 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#). **For Western blot applications, Catalog # [MAB8058](#) is recommended.**

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

EGF receptor, also known as ErbB1, is an approximately 160 kDa transmembrane receptor tyrosine kinase that binds multiple EGF family proteins. Ligand binding induces EGFR homodimerization or heterodimerization with ErbB2, 3, or 4 as well as activation of its kinase domain and phosphorylation within the cytoplasmic domain. Phosphorylation of Tyr869 by Src is important for full activation of the receptor. Phosphorylation of Tyr1197 by MAP kinases contributes to EGFR interaction with PIK3C2B. EGFR signaling regulates multiple biological functions including cell proliferation, differentiation, motility, and apoptosis. Three additional alternative splice forms lack the transmembrane and cytoplasmic domains. Within the ECD, human EGFR shares 88% aa sequence identity with mouse and rat EGFR.