

## Product datasheet for **AM12000PU-N**

### EGFR pTyr1016 Mouse Monoclonal Antibody [Clone ID: EM-12]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	EM-12
Applications:	FC, IP, WB
Recommended Dilution:	Flow Cytometry. Immunoprecipitation. Western blot: 1 µg/ml. Positive control: EGF-stimulated A431. Negative control: Non-stimulated A431.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic phospho-peptide covering sequence around tyrosine 1016 of human EGFR
Specificity:	The antibody EM-12 reacts with human EGFR (ErbB1 / HER1) phosphorylated on tyrosine 1016.
Formulation:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 State: Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Protein A chromatography (> 95% pure by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store the antibody at 2-8°C for up to one month or (in aliquots) at -20°C for longer.
Gene Name:	epidermal growth factor receptor
Database Link:	<a href="#">Entrez Gene 1956 Human P00533</a>



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**Background:**

The oncoprotein EGFR (epidermal growth factor receptor), also known as HER1 / ErbB1, is a member of ErbB family of cell surface receptor tyrosine kinases. This 170 kDa transmembrane glycoprotein is often associated with cancerogenesis, although its activation state is controlled at various levels including trafficking and degradation steps. Binding of receptor-specific ligands to the EGFR ectodomain results in formation of homodimeric or heterodimeric kinase-active complexes into which HER2 / ErbB2 is recruited as a preferred partner. Subsequent signaling cascades such as RAS/MAPK and PI3K/AKT pathways lead to cell proliferation and survival responses.

**Synonyms:**

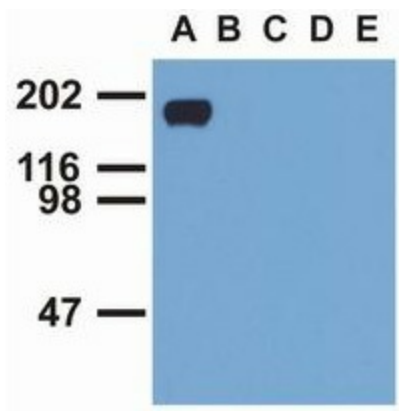
Epidermal growth factor receptor, EGF Receptor, erbB-1, c-ErbB-1

**Protein Families:**

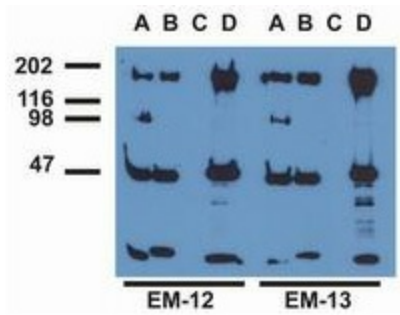
Adult stem cells, Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Secreted Protein, Stem cell relevant signaling - JAK/STAT signaling pathway, Transmembrane

**Protein Pathways:**

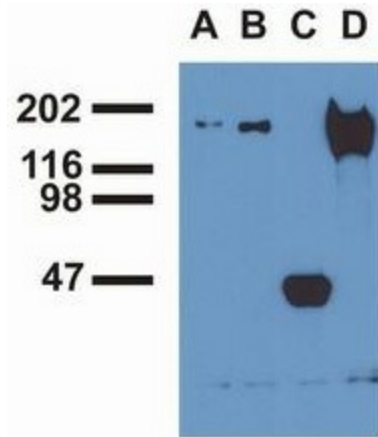
Adherens junction, Bladder cancer, Calcium signaling pathway, Colorectal cancer, Cytokine-cytokine receptor interaction, Dorso-ventral axis formation, Endocytosis, Endometrial cancer, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, MAPK signaling pathway, Melanoma, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Prostate cancer, Regulation of actin cytoskeleton

**Product images:**

Western blotting analysis of EGFR (phospho-Tyr992) by mouse monoclonal antibody EM-12 in EGF-treated A431 (A), CALU-3 (B), MCF-7 (C), Jurkat (D) and Ramos (E) cell lines (reduced conditions).



Immunoprecipitation of EGFR from EGF-treated A431 cells by monoclonal antibodies EM-12 (A), EM-13 (B), a commercial anti-EGFR polyclonal antibody (C) and anti-EGFR monoclonal mAb108 (D). The precipitates were immunoblotted with EM-12 or EM-13 antibody, and goat anti-mouse-HRP.



Immunoprecipitation of EGFR from EGF-treated A431 cells by phosphospecific monoclonal antibodies EM-12 (A), EM-13 (B), a commercial anti-EGFR polyclonal antibody (C) and anti-EGFR monoclonal mAb108 (D). The precipitates were immunoblotted with a commercial anti-EGFR polyclonal and goat anti-rabbit-HRP.