

## Mouse Monoclonal Antibody to

# EGFR (extracellular domain)

## clone 20E12

## biotinylated

**Order No.:** 0209-100BIOTIN/EGFR-20E12

**Size (µg)** 100

**Lot No.:** 0209S



03/260207F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG2a	human	WB	180 kDa	A431	extracellular domain	peptide conjugated to hemocyanin

### Background and Specificity:

EGF Receptor (EGFR) and erbB2, erbB3, and ErbB4 are members of subclass I of receptor tyrosine kinases. EGFR/erbB receptors are activated upon binding of EGF and EGF-related growth factors such as TGF alpha, beta-cellulin, Hb-EGF, HRG, or NRG. Binding of these ligands leads to receptor homo- and heterodimerization followed by autophosphorylation and activation of downstream signal transduction pathways (MAPK, PI3K/PKB, and STAT). In addition, EGFR becomes fully activated after phosphorylation of Y845 by src family kinases. Phosphorylation of Y1045 leads to association with cbl and subsequent receptor degradation. Phosphorylation of S1047 by CamKinase II leads to attenuation of kinase activity; phosphorylation of T654 (by PKC) and T669 (by MAPK, p38) interferes with receptor endocytosis/recycling.

**Mab EGFR-20E12** specifically recognizes the extracellular domain of EGF receptor.

### Related Products

- mab to EGFR (C-terminus)**  
#0007-100/EGFR-13G8
- mab to EGFR (cytoplasmic domain)**  
#0168-100/EGFR-10F4
- mab to EGFR (aa 960 - 980)**  
#0199-100/EGFR-16F8
- mab to EGFR (N-terminus)**  
#0201-100/EGFR-14C8
- mab to phospho-EGFR (pY 845)**  
#0116-100/EGFR-12A3
- mab to phospho-EGFR (pY1045)**  
#0136-100/EGFR-11C2
- mab to phospho-EGFR (pY1068)**  
#0187-100/EGFR-15A2
- mab to phospho-EGFR (pY 1086)**  
#0188-100/EGFR-8B8
- mab to phospho-EGFR (pY 1148)**  
#0219-100/EGFR-10G12
- mab to phospho-EGFR (pY1173)**  
#0008-100/EGFR-9H2
- mab to dephospho-EGFR (Y1173)**  
#0009-100/EGFR-20G3
- mab to phospho-EGFR (pT669)**  
#0191-100/EGFR-5F10
- mab to phospho-EGFR (pT654)**  
#0138-100/EGFR-3F2
- mab to phospho-EGFR (pS1047)**  
#0107-100/EGFR-1H9

For monoclonal antibodies against erbB2, phospho-erbB2, erbB3 and erbB4, as well as against various EGFR downstream targets, please refer to our website at [www.nanotools.de](http://www.nanotools.de)

**Purification:** The antibody was purified from serum-free cell culture supernatant by subsequent ultrafiltration and size exclusion chromatography.

**Formulation:** liquid; 0.5 mg/ml in PBS/0.09% Na-Azide/PEG and Sucrose

**Reconstitution:**

**Stability:** Aliquote and freeze in liquid nitrogen; antibody can be stored frozen at -80°C up to 1 year. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.

**Avoid repeated freeze / thaw cycles.**

**Positive Control:** #0831: Cell lysate from untreated A431 cells

**Immunoblotting:** 0.5 µg/ml for HRPO/ECL detection  
**Recommended blocking buffer:** Casein/Tween 20 based blocking and blot incubation buffer, e.g. nanoTools product #3031-500/CPPT or #3031-3000/CPPT.

**Immunoprecipitation:** ND

**Immunocytochemistry:** ND

**ELISA:** ND

**All products are supplied for research and investigational use only. Not for use in humans or laboratory animals.**