

## Mouse Monoclonal Antibody to

# EGFR (cytoplasmic domain)

## clone 10F4

**Order No.:** 0168-100/EGFR-10F4  
**Size (µg)** 100  
**Lot No.:** 0168S



03/260207F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse	WB	180 kDa	HepG2	cytoplasmic domain (aa 1140 - 1160)	peptide conjugated to hemocyanin

### Background and Specificity:

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-10F4** specifically recognizes the cytoplasmic domain of EGF receptor (aa 1165 - 1186). Recognition is independent of the phosphorylation status.

### Related Products

- mab to EGFR (C-terminus)**  
#0007-100/EGFR-13G8
- mab to EGFR (extracellular domain)**  
#0209-100/EGFR-20E12
- 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 thiophilic adsorption and size exclusion chromatography.

**Formulation:** lyophilized from 1 ml PBS / 0.09 % Na-azide / PEG and Sucrose.

**Reconstitution:** Reconstitute with 1 ml H<sub>2</sub>O (15 min, RT).

**Stability:** For long-term storage, freeze lyophilizate upon arrival (-20°C). Upon reconstitution, aliquote and freeze in liquid nitrogen; reconstituted 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.**

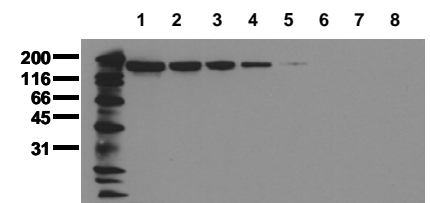
**Positive Control:** #0811: Cell lysate from untreated HepG2

**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



### Antibody sensitivity

Whole cell lysates of vanadate-treated HepG2 containing defined cell numbers per lane were applied to SDS-PAGE and transferred to PVDF membranes. Immunoblots were probed with mab EGFR-10F4 (0.5 µg/ml) for 1h at RT and developed by ECL (exp. time: 30 sec).

lane 1: 160.000 cells, lane 2: 80.000 cells lane 3: 40.000 cells, lane 4: 20.000 cells, lane 5: 10.000 cells, lane 6: 5.000 cells, lane 7: 2.500 cells, lane 8: 1.000 cells

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