

Mouse Monoclonal Antibody to

EGFR (dephospho-Tyr 1173)

clone 20G3

Order No.: 0009-100/EGFR-20G3

Size (µg) 100

Lot No.: 0009S

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02/260207F

| Isotype | Species Reactivity | Applications | Mol. Weight | Ref.Cell Line | Epitope | Immunogen |
|---------|--------------------|-----------------------------|-------------|---------------|-----------------|---------------------------|
| IgG1 | human, mouse | ELISA, WB, IP, ICC, Luminex | 180 kDa | HepG2 | dephospho-Y1173 | peptide conjugated to KLH |

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-20G3 specifically recognizes non-activated EGF-receptor (dephosphorylated at Y1173) and is interacting with the 1170 - N A E Y L R V peptide motif. Mab EGFR-20G3 does not interact with the activated EGF-receptor phosphorylated at Y1173.

Related Products

- mab to EGFR (C-terminus)**
#0007-100/EGFR-13G8
- mab to EGFR (cytoplasmic domain)**
#0168-100/EGFR-10F4
- 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 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

- 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 H₂O (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.

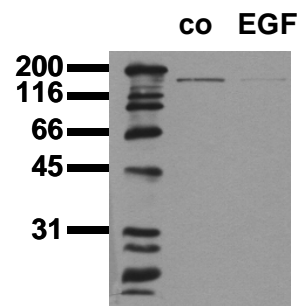
Positive Control: #0811: Cell lysate from untreated HepG2

Immunoblotting: 1 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: use at 1 - 10 µg per 10⁶ vanadate treated A431 cells

Immunocytochemistry use at 1-10 µg/ml

ELISA: use at 0.05 µg/ml



Phosphospecificity

Whole cell extracts of control (co) and EGF stimulated (EGF) A431 tumor cells were applied to SDS-PAGE (ca. 20.000 cells per lane) and transferred to a PVDF membrane. The immunoblot was probed with mab EGFR-10G12 (0.5 µg/ml) for 1h at RT and developed by ECL (exp. time: 30 sec).

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