

Mouse Monoclonal Antibody to

EGFR (phospho-Ser 1047)

clone 1H9

Order No.: 0107-100/EGFR-1H9

Size (µg) 100

Lot No.: 0107S

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04/260207F

| Isotype | Species Reactivity | Applications | Mol. Weight | Ref.Cell Line | Epitope | Immunogen |
|---------|--------------------|-----------------------------|-------------|---------------|---------------------------------------|----------------------------------|
| IgG1 | human, mouse, dog | WB, ELISA, IP, ICC, Luminex | 180 kDa | HepG2 | Phosphoserine 1047 R Y S p S D S T | phosphopeptide 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-1H9 specifically recognizes EGFR phosphorylated at Serine 1047. The antibody is suitable for Western Blot, Immunocytochemistry and ELISA applications.

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 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

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:

#0812: Cell lysate from pervanadate-treated HepG2 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:

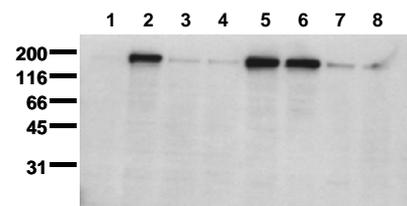
use at 1 - 10 µg per 10⁶ pervanadate-treated A431 cells

Immunocytochemistry

use at 0.1-1 µg/ml

ELISA:

use at 0.1 µg/ml



EGFR Transactivation

Serum starved HepG2 cells were treated for 15min as indicated. Whole cell lysates were separated by SDS-PAGE (ca 20.000 cells/lane). The immunoblot was probed with mab EGFR-1H9 (0.5 µg/ml) for 1h at RT and developed by ECL (exp. time: 30 sec).

lane 1: control; lane 2: PMA; lane 3: Forskolin; lane 4: LPA; lane 5: Sorbit; lane 6: Anisomycin; lane 7: Ionomycin; lane 8: Taxol

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