Mouse Monoclonal Antibody to

MAPK/erk (pT - E - pY)

clone 12D4

Order No.: **0012-100/MAPK-12D4**

Size (µg) 100

Lot No.: 0012S

www.nanotools.de

orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671

04/080507F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, rat, dog	WB, ELISA, IP, ICC, IHC	42 - 44 kDa	HepG2	...pT - E - pY...	phosphopeptide conjugated to KLH

Background and Specificity:

Extracellular signal/mitogen activated protein kinases (erk/MAPK) are a group of proline-directed serine/threonine kinases that are activated by dual phosphorylation of conserved threonine and tyrosine residues within a characteristic **T X Y** peptide motif. The mitogen-activated kinases erk1 (MAPK1) and erk2 (MAPK2) acquire full enzymatic activity upon phosphorylation of both threonine and tyrosine residues within the sequence motif **T E Y**.

Mab MAPK-12D4 specifically interacts with the **pThr - Glu - pTyr motif** of activated MAP kinases 1 and 2 (erk1/2). The antibody requires phosphorylation both at the threonine and the tyrosine site and does not interact with the non-phosphorylated form of the protein. Mab MAPK-12D4 shows no crossreaction with activated SAP kinases 1 or 2.

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

Formulation: lyophilized from 1 ml 2 x PBS / 0.09 % Na-azide / PEG and Sucrose.

Reconstitution: Reconstitute with 1 ml H_2O (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 10^6 pervanadate-treated A431 or HepG2 cells

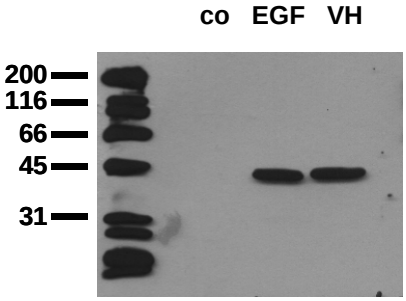
Immunocytochemistry: use at 1 - 10 µg/ml

ELISA: use at 0.05 µg/ml

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

Related Products

mab to MAPK 2 (C-terminus)
#0011-100/MAPK2-6G11
mab to MAPK 2 (N-terminus)
#0178-100/MAPK2-6H3
mab to MAPK 2 (internal sequence)
#0239-100/MAPK2-12A4
mab to MAPK 7/erk5 (N-terminus)
#0223-100/MAPK7/erk5-12F2
mab to MEK1 (N-terminus)
#0186-100/MEK1-10B1
mab to MEK1 (pS218/222)
mab to MEK2 (pS222/226)
#0174-100/MEK1/2-7E10
mab to MEK1/2
#0150-100/MEK1/2-9G3
mab to MEK2 (N-terminus)
#0148-100/MEK2-8E8
mab to MKK3 (N-terminus)
#0166-100/MKK3-5F7
mab to MKK5 (N-terminus)
#0224-100/MKK5-14B5
mab to MKK7 (N-terminus)
#0189-100/MKK7-10F7
mab to Fos (pS374)
#0118-100/Fos-34E4
mab to Fos (N-terminus)
#0122-100/Fos-8B5
mab to C-Raf (pS621)
#0102-100/C-Raf-6B4
mab to C-Raf
#0120-100/C-Raf-PBB-1



Phosphospecificity

Whole cell extracts of control (co), EGF stimulated (EGF) or pervanadate treated (VH) SKOV3 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 MAPK-12D4 (0.5 µg/ ml) for 1h at RT and developed by ECL (exp. time: 30 sec).