

Mouse Monoclonal Antibody to

MAPK/erk (pT - E - pY)

clone 12D4

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

Size (µg) 100

Lot No.: 0012S



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.

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

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 ₂ 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.

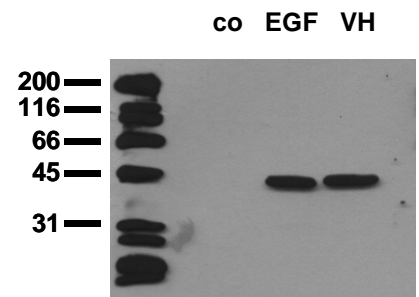
Positive Control:	#0812: Cell lysate from pervanadate-treated HepG2 cells
Immunoblotting:	0.5 µg/ml for HRPO/ECL detection Recommended blocking buffer: Casein/Tween 20 based blocking and blot incubation buffer, e.g. nanoTools product #3031-500/CPPT or #3031-3000/CPPT.

Immunoprecipitation: use at 1 - 10 µg per 10⁶ pervanadate-treated A431 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.



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).