

Mouse Monoclonal Antibody to

MAPK/erk (pT - E - pY)

clone 12D4

biotinylated

Order No.: 0012-100BIOTIN/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:	liquid; 0.5 mg/ml in PBS/0.09% Na-Azide/PEG and Sucrose
Reconstitution:	
Stability:	Aliquote and freeze in liquid nitrogen; 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.