

Monoclonal Antibody to

MAPK/erk (pT-E-pY)**clone 12D4**

Order No.:	0012-100/MAPK-12D4	Last Modified	11.04.2005
Size (µg)	100		
Lot No.:	0012S		
Host:	Mouse		
Isotype:	IgG1 kappa		
Immunogen:	phosphopeptide conjugated to KLH		
Epitope:	pThr - Glu - pTyr motif of activated MAP Kinase		

Species Reactivity	Human	Mouse	Rat	Dog
	<input type="checkbox"/> yes	<input type="checkbox"/> yes	<input type="checkbox"/> yes	<input type="checkbox"/> yes

Background & 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 P** 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:

ERK2-6G11 - monoclonal antibody specifically recognizing the C-terminus of erk2.

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 / 0.1 % Na-azide / PEG and Sucrose.
Reconstitution:	Reconstitute with 1 ml H ₂ O (15 min, RT).
Stability:	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:	Cell lysate from vanadate-treated HepG2 cells (0812).
Immunoblotting:	0.5 µg/ml for HRPO/ECL detection Recommended blocking buffer CPPT: 0.5% (w/v) casein, 1% (w/v) PEG 4000, 1% (w/v) Polyvinylpyrrolidone (PVP), 0.1% (v/v) Tween 20, 10 mM Tris/HCl, pH 7.4, 150 mM NaCl
Immunoprecipitation	use at 1 - 10 µg per 10 ⁶ vanadate treated A431 or HepG2 cells
Immunocytochemistry	ND
ELISA:	use at 0.05 µg/ml

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