SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalogue #	Aliquot Size
M29-652R-100	100 µl

Anti-phospho-ERK1/2 (Thr202/Tyr204)

Rabbit Polyclonal Antibody

Catalog # M29-652R

Lot # J1274-16

Cited Applications

WB, IHC

Suggested Dilutions:
WB 1:1,000, IHC 1:500

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the ERK1/2 protein phosphorylated at threonine 202 and tryrosine 204

Cross Reactivity

Human, Mouse, Rat, Bovine, Canine, Chicken, non-Human Primates, Xenopus andZebrafish

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr202/Tyr204 conjugated to KLH

Formulation

100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.

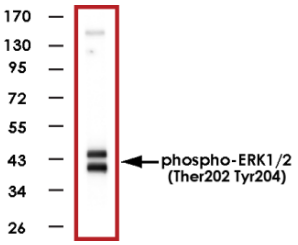
Scientific Background

Extracellular-Signal Regulated Kinase/Mitogen-Activated Protein Kinase (ERK/MAPK) is a serine threonine kinase. It plays an integral role of cellular signaling during mitogenesis and differentiation of mitotic cells. ERK is presumed to have a key role in learning and memory (1,2,3). The activity of this kinase is regulated by phosphorylation at Thr202 and Tyr204 (4). Activated ERK1/2 translocates into the nucleus where it phosphorylates various transcription factors (e.g Elk-1, c-Myc, c-Jun, c-Fos and C/EBP beta).

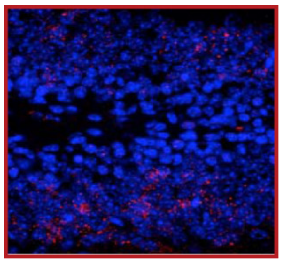
References

1. Adams, J P. et al: Molecular psychology: Roles for the ERK MAP kinase cascade in memory. Annu Rev Pharmacol Toxicol 2002 42:135-163.
2. Johnson, G L. et al: Mitogen-activated protein kinase pathways mediated by ERK, JNK, and p38 protein kinases. Science 202 298:1911-1912.
3. Tanoue, T J. et al: Molecular recognitions in the MAP kinase cascades. Cellular Signaling 2003 15:455-462.
4. Ahn, N G.: The MAP kinase cascade. Discovery of a new signal transduction pathway. Mol Cell Biochem 1993 127-128:201-209.

Sample Data



Western blot of human T47D cell lysates showing specific immunolabeling of ~42-44kDa ERK1/2 protein phosphorylated at Thr202/Tyr204(Control). Phosphospecificity is shown in the second lane (lambda-phosphatase: lambda-Ptase). The blot is identical to the control except that it was incubated in lambda-Ptase (1200 units for 30 min) before being exposed to the Anti-phospho-ERK1/2 (Thr202/Tyr204)antibody. The immunolabeling is completely eliminated by treatment with lambda-Ptase.



Immunostaining of granule cells in the dentate gyrus of saline treated mouse showing ERK1/2when phosphorylated at Thr202/Tyr204(red) and nuclei (blue). Photo courtesy of RobertWine.

Anti-phospho-ERK1/2 (Thr202/Tyr204)

Rabbit Polyclonal Antibody

Catalog Number	M29-652R
Specific Lot Number	J1274-16
Purification	Affinity chromatography
Stability	1yr at –20°C from date of shipment
Storage & Shipping	Store product at –20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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