

Phospho-Thr202/Tyr204 ERK/MAPK Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1010**Specification**

Phospho-Thr202/Tyr204 ERK/MAPK Antibody - Product Information

Application	WB, IHC
Primary Accession	P63086
Reactivity	Human, Rat
Predicted	Bovine, Chicken, Mouse, Monkey, Xenopus, Zebrafish
Host	Rabbit
Clonality	polyclonal
Calculated MW	42/44 KDa

Phospho-Thr202/Tyr204 ERK/MAPK Antibody - Additional Information

Gene ID	116590
Gene Name	MAPK1/2

Other Names

Mitogen-activated protein kinase 1, MAP kinase 1, MAPK 1, ERT1, Extracellular signal-regulated kinase 2, ERK-2, MAP kinase isoform p42, p42-MAPK, Mitogen-activated protein kinase 2, MAP kinase 2, MAPK 2, Mapk1, Erk2, Mapk, Prkm1

Target/Specificity

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

Dilution

WB~~ 1:1000

IHC~~ 1:500

Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Antibody Specificity

Specific for the ~42k - 44k ERK/MAPK phosphorylated at Thr202 and Tyr204. Immunolabeling is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. The immunolabeling is completely eliminated by λ -phosphatase.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-Thr202/Tyr204 ERK/MAPK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

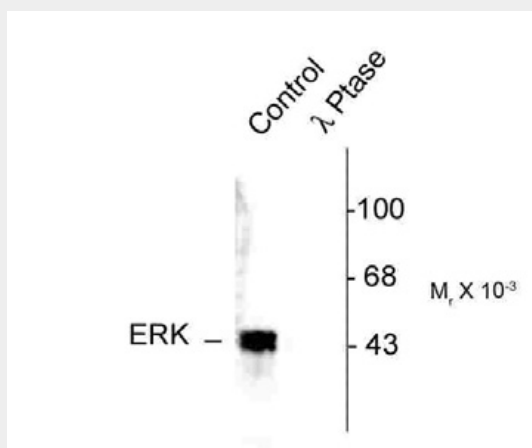
Blue Ice

Phospho-Thr202/Tyr204 ERK/MAPK Antibody - Protocols

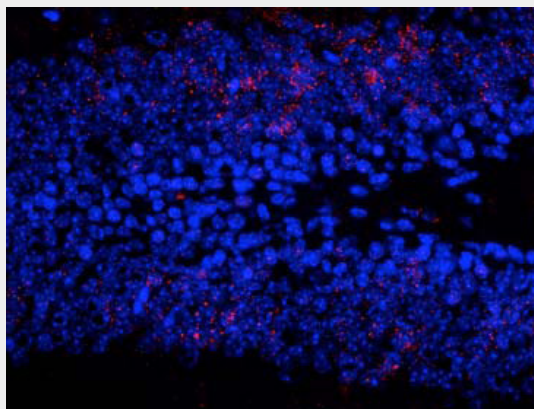
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-Thr202/Tyr204 ERK/MAPK Antibody - Images



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



Immunostaining of granule cells in the dentate gyrus of saline treated mouse showing ERK/MAPK when phosphorylated at Thr202/Tyr204 (red) and nuclei (blue). Photo courtesy of Robert Wine.

Phospho-Thr202/Tyr204 ERK/MAPK Antibody - Background

Extracellular-Signal Regulated Kinase/Mitogen-Activated Protein Kinase (ERK/MAPK) is an integral component of cellular signaling during mitogenesis and differentiation of mitotic cells and also is thought to play a key role in learning and memory (Adams and Sweatt, 2002; Ahn, 1993; Tanoue and Nishida, 2003; Johnson and Lapadat, 2002). The activity of this kinase is regulated by dual phosphorylation at Thr202 and Tyr204 (Ahn, 1993).

Phospho-Thr202/Tyr204 ERK/MAPK Antibody - References

Adams JP, Sweatt JD (2002) Molecular psychology: Roles for the ERK MAP kinase cascade in memory. *Annu Rev Pharmacol Toxicol* 42:135-163.

Ahn, NG (1993) The MAP kinase cascade. Discovery of a new signal transduction pathway. *Mol Cell Biochem* 127-128:201-209.

Johnson GL, Lapadat R (2002) Mitogen-activated protein kinase pathways mediated by ERK, JNK, and p38 protein kinases. *Science* 298:1911-1912.

Tanoue TJ, Nishida, E (2003) Molecular recognitions in the MAP kinase cascades. *Cellular Signaling* 15:455-462.