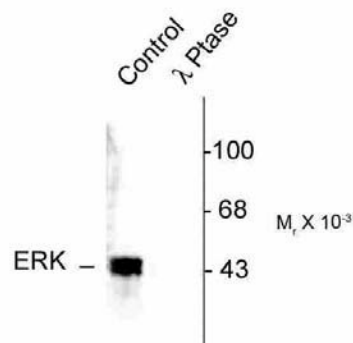


Pel-Freez[®]**Product Specifications****Anti-Phospho-/ ERK/MAPK****Size:** 100 μ l**Product Description:** Affinity purified rabbit polyclonal antibody**Applications: WB:** 1:1000**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding the and of rat ERK/MAPK.**Species reactivity:** The antibody has been directly tested for reactivity in Western blots with human and rat tissue. It is anticipated that the antibody will also react with bovine, canine, chicken, mouse, non-human primates, *Xenopus* and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.**Biological Significance:** 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 and (Ahn, 1993).**Anti-Phospho / ERK/MAPK**

Western blot of human T47D cell lysates showing specific immunolabeling of ~42-44k ERK/MAPK protein phosphorylated at and (Control). The phosphospecificity of this labeling 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 Anti-/ ERK/MAPK. The immunolabeling is completely eliminated by treatment with λ -Ptase.

Purification Method: 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 and . Immunolabeling is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. The immunolabeling is completely eliminated by λ phosphatase.

Quality Control Tests: Western blots performed on each lot.

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* 127:201-209. 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.

WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation **Packaging:** 100 μ l in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g BSA per ml and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots. **Storage and Stability.** For long term storage – is recommended. Stable at – for at least 1 year. **Shipment:** Domestic - Blue Ice; International – Blue Ice or Dry Ice.