219 North Arkansas Street
Rogers, AR 72756
Phone: (479) 636-4361; 800-643-3426
Fax: (479) 636-3562
Email: biosales@pel-freez.com
Website: www.pelfreez-bio.com

PRODUCT DATA SHEET

Product Name: **ANTI-PHOSPHO-Thr^{202}/Tyr^{204} ERK/MAPK ANTIBODY**

Product Code: P46101-100

Pack Size: 100 µL

Description: 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 Thr^{202} and Tyr^{204} (Ahn, 1993).

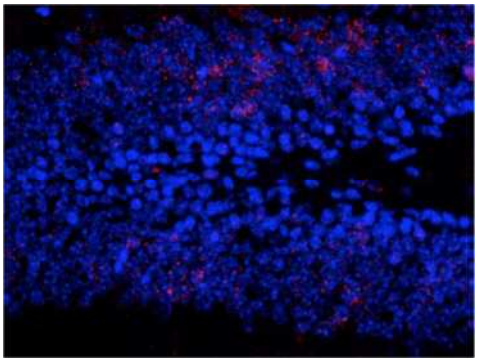
Physical State: Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol

Storage/Stability: Stable at -20 °C for at least 1 year. For long term storage -20 °C is recommended

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

Shipping Conditions: Domestic: Blue Ice
International: Blue Ice or Dry Ice

Immunostaining
Granule cells in the dentate gyrus of saline treated mouse showing ERK/MAPK when phosphorylated at Thr^{202} and Tyr^{204} (red) and nuclei (blue). Photo courtesy of Robert Wine.



Host Species: Rabbit (Polyclonal)

***M*r (kDa):** 42-44

Immunogen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr^{202} and Tyr^{204} of rat ERK/MAPK. Specific for the ~42k - 44k ERK/MAPK phosphorylated at Thr^{202} and Tyr^{204}. Immunolabeling is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. The immunolabeling is completely eliminated by λ-phosphatase.

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.

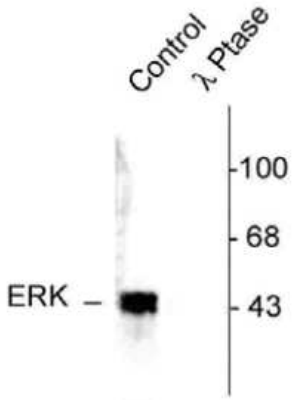
Recommended Antibody Dilutions:

WB: 1:1000
IHC: 1:500

References:

1) Adams JP et al. (2002) *Annu Rev Pharmacol Toxicol* 42:135-163.
2) Ahn, NG (1993) *Mol Cell Biochem* 127-128:201-209.
3) Johnson GL et al. (2002) *Science* 298:1911-1912.
4) Tanoue TJ et al. (2003) *Cellular Signaling* 15:455-462.

Western Blot
Human T47D cell lysates showing specific immunolabeling of ~42-44k ERK/MAPK protein phosphorylated at Thr202/Tyr204 (Control). Immunolabeling is completely eliminated by treatment with λ-Phosphatase in lane 2.



Application Key: WB – Western Blot IF – Immunofluorescence IHC – Immunohistochemistry IP - Immunoprecipitation