

Certificate of Analysis

Product: Affinity Purified Anti- p44 ERK1 [Rabbit]

Code: 600-401-943

Lot #: 18221

Size: 100 µg

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.0 mg/ml (by UV absorbance at 280 nm)

Buffer: 0.1 M Tris HCl, 0.15 M Sodium Chloride, pH 7.5

Stabilizer: None

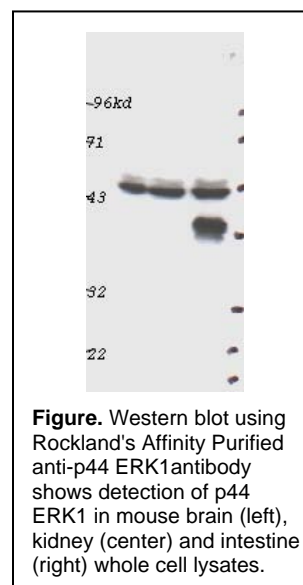
Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

Background Information: Cell proliferation is regulated in several contexts, for example during development, tissue differentiation, wound healing and immune responses. In mammalian cells, proliferative signals lead to the activation of a protein kinase cascade, resulting in the phosphorylation of two closely related Mitogen-Activated Protein Kinases (MAPK's) ERK1 and ERK2. When activated, ERK's form dimers that translocate to the nucleus where they phosphorylate several classes of transcription factors which are involved in the up-regulation of immediate early genes. As such, ERK1 and ERK2 represent a paradigm for a growing family of proline-directed protein kinases that mediate entry, progression and exit from the cell cycle in diverse eukaryotic cells. These enzymes function within highly conserved cascade of sequentially activating protein kinases that transduce signals from diverse extracellular stimuli. Alternatively spliced transcript variants encoding different protein isoforms have been described.

Recommended Dilutions:

ELISA	1:2000
WESTERN BLOT	1:1000-1:2000
IMMUNOPRECIPITATION	5.0 µg/mg sample
OTHER APPLICATIONS	User Optimized



Application Note(s): This affinity purified antibody has been tested for use in ELISA, immunoprecipitation and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a predominant band approximately 45 kDa in size corresponding to p44 ERK1 by western blotting in the appropriate cell lysate or extract.

Purity and Specificity: This affinity-purified antibody is directed against the human p44 ERK1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with p44 ERK1 proteins from human, bovine, rabbit, rat and mouse. No reactivity is observed against p42 ERK2. Reactivity against homologues from other sources is not known.

Relevant Link(s): Swiss Prot: [P27361](#)

NCBI Link [NP_002737](#)

Protein Sequence: Human p44 ERK1, 379 aa, predicted MW 43.1 kDa

Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the carboxy terminal end of human p44 ERK1 protein.

USDA Certification: All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.