

## ERK1 (K71A) Protein

Full-length human recombinant protein expressed in *E. coli* cells

**Catalog # M29-16H**

Lot # N137-5

### Product Description

Recombinant full-length human ERK1 was expressed in *E. coli* cells using an N-terminal His tag. The gene accession number is [NM\\_002746](#).

### Gene Aliases

PRKM3; P44ERK1; P44MAPK; MAPK3

### Formulation

Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

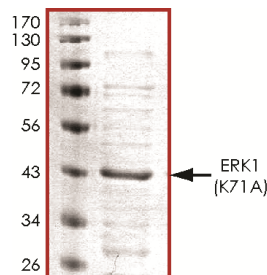
### Scientific Background

ERK1 is a protein serine/threonine kinase that is a member of the extracellular signal-regulated kinases (ERKs) which are activated in response to numerous growth factors and cytokines (1). Activation of ERK1 requires both tyrosine and threonine phosphorylation that is mediated by MEK. ERK1 is ubiquitously distributed in tissues with the highest expression in heart, brain and spinal cord. Activated ERK1 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. Boulton, T G. et al: Purification and properties of extracellular signal-regulated kinase 1, an insulin-stimulated microtubule-associated protein 2 kinase. *Biochemistry*. 1991 Jan 8;30(1):278-86.

### Purity



The purity of ERK1 (K71A) was determined to be **>85%** by densitometry. Approx. MW **44kDa**.

### Upstream Active Kinases

MEK1, Active	Cat. # M02-10G
MEK1 (EE), Active	Cat. # M02-12G
MEK2, Active	Cat. # M03-10G

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Catalog Number	M29-16H
Specific Lot Number	N137-5
Purity	>85%
Concentration	0.2 µg/µl
Stability	1 yr At $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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