

## MEK1 (K97A), Unactive

Recombinant full-length mutant protein expressed in *E. coli*

**Catalog # M02-16H**

Lot # D2305-10

### Product Description

Recombinant human full-length mutant MEK1 (K97A) was expressed in *E. coli* using an N-terminal His tag. This kinase-dead protein is designed for up-stream kinase assay. The MEK1 gene accession number is [NM\\_002755](#).

### Gene Aliases

MAP2K1, MKK1, MAPKK1, PRKMK1

### Formulation

Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 2mM DTT, and 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.

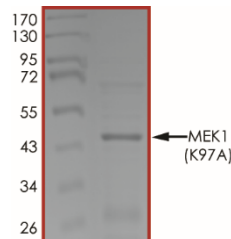
### Scientific Background

MEK1 is a member of the dual specificity protein kinase family that acts as a mitogen-activated protein kinase (MAPK) kinase. MEK1 lies upstream of MAPK/ERK and stimulates the enzymatic activity of MAPK/ERK upon a wide variety of extra- and intracellular signals. As an essential component of MAPK/ERK signal transduction pathway, MEK1 is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development (1). Constitutive activation of MEK1 results in cellular transformation. Thus, MEK1 represents a likely target for pharmacologic intervention in proliferative disease such as cancer (2).

### References

1. Seger, R. et al: The MAPK signaling cascade. *FASEB J.* 9: 726-735, 1995.
2. Sebolt-Leopold, J S. et al: Blockade of the MAP kinase pathway suppresses growth of colon tumors in vivo. *Nature Med.* 5: 810-816, 1999.

### Purity



The purity of MEK1 (K97A) was determined to be **>70%** by densitometry, approx. MW **49 kDa**.

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Recombinant full-length mutant protein expressed in *E. coli*

Catalog #	M02-16H
Lot #	D2305-10
Purity	>70%
Concentration	0.1 µg/µl
Stability	1yr 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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