

## p38α (K53A), Unactive

Recombinant full-length protein expressed in E.coli

**Catalog # M39-16H**

Lot # F591-2

### Product Description

Recombinant human full-length mutant p38α (K53A) was expressed in E.coli using an N-terminal His tag. This kinase-dead protein is designed for up-stream kinase assay. The p38α gene accession number is [NM\\_139012](#).

### Gene Aliases

RK, p38, EXIP, Mxi2, CSBP1, CSBP2, CSPB1, PRKM14, PRKM15, SAPK2A, p38ALPH

### 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°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.

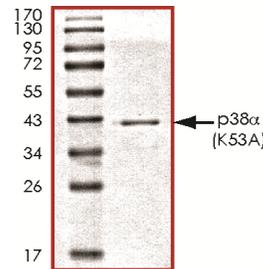
### Scientific Background

p38α (SAPK2A) is a member of the p38 MAPK family which are activated by various environmental stresses and proinflammatory cytokines (1). The activation of p38 requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase (2). The substrates of p38 include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response (5).

### References

- Han, J. et al: A MAP kinase targeted by endotoxin and hyperosmolarity in mammalian cells. *Science* 265: 808-811, 1994.
- Ge, B. et al: MAPKK-independent activation of p38-alpha mediated by TAB1-dependent autophosphorylation of p38-alpha. *Science* 295: 1291-1294, 2002.

### Purity



The purity of p38α (K53A) was determined to be **>95%** by densitometry, approx. MW **42kDa**.

### Upstream Active Kinases

The p38α (K53A) protein can be utilized as a substrate for the active protein kinases MKK4 and MKK6.

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Recombinant full-length human protein expressed in E.coli

Catalog Number	M39-16H
Specific Lot Number	F591-2
Purity	>95%
Concentration	0.2 µg/µl
Stability	1yr At -70°C from date of shipment
Storage & Shipping	Store product at -70°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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