# Recombinant MKNK2 protein (His tag)

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| **Catalog Number** | 548289 |
| **Synonyms** | MAP kinase signal-integrating kinase 2; MAPK signal-integrating kinase 2; Mnk2 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q9HBH9 |
| **Molecular Weight** | Predictes a molecular mass of 19.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band. |

## Product Information

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| **Sequence Region** | 78-227 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >85%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 78-227 aa (Q9HBH9) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant human MAP kinase-interacting serine/threonine-protein kinase 2 (Mnk2) fragment (residues 78-227), a stable and soluble unit ideal for structural and biochemical studies. This fragment supports research into Mnk2's role in stress response, translation regulation, and apoptosis signaling.<br>MAP kinase-interacting serine/threonine-protein kinase 2 (Mnk2), encoded by the MKNK2 gene, is a serine/threonine kinase that phosphorylates key substrates including SFPQ/PSF, HNRNPA1, and EIF4E. It plays a critical role in environmental stress and cytokine responses, regulates translation by enhancing EIF4E affinity for mRNA caps, and mediates PP2A-inhibition-induced EIF4E phosphorylation. Mnk2 also facilitates EIF4E shuttling from the cytoplasm to the nucleus and is involved in IFNγ-mediated suppression of hematopoiesis. Additionally, it acts as a negative regulator in arsenic trioxide-dependent apoptosis and anti-leukemic responses, contributing to anti-apoptotic signaling during serum withdrawal. Isoform 1 is cytoplasmic, while isoform 2 localizes to nuclear PML bodies, highlighting its diverse cellular functions. |