# Recombinant Human MKNK2 Protein (D228G, 72-385), His tagged

**Cat. No.** MKNK2-33H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | MNK2 (amino acid residues 72–385, D228G) with His tag, which includes the kinase domain, is expressed in E. coli as a single, non-glycosylated polypeptide chain. It is well purified by affinity, ion exchange and gel filtration chromatographic techniques. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | 72-385 |
| **Description** | This gene encodes a member of the calcium/calmodulin-dependent protein kinases (CAMK) Ser/Thr protein kinase family, which belongs to the protein kinase superfamily. This protein contains conserved DLG (asp-leu-gly) and ENIL (glu-asn-ile-leu) motifs, and an N-terminal polybasic region which binds importin A and the translation factor scaffold protein eukaryotic initiation factor 4G (eIF4G). This protein is one of the downstream kinases activated by mitogen-activated protein (MAP) kinases. It phosphorylates the eukaryotic initiation factor 4E (eIF4E), thus playing important roles in the initiation of mRNA translation, oncogenic transformation and malignant cell proliferation. In addition to eIF4E, this protein also interacts with von Hippel-Lindau tumor suppressor (VHL), ring-box 1 (Rbx1) and Cullin2 (Cul2), which are all components of the CBC(VHL) ubiquitin ligase E3 complex. Multiple alternatively spliced transcript variants have been found, but the full-length nature and biological activity of only two variants are determined. These two variants encode |

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| | distinct isoforms which differ in activity and regulation, and in subcellular localization. |
| **AA Sequence** | GSTDSFSGRFEDVYQLQEDVLGEGAHARVQTCINLITSQEYAVKIIEKQPGHIRSRVF REVEMLYQCQGHRNVLELIEFFEEEDRFYLVFEKMRGGSILSHIHKRRHFNELEASV VVQDVASALDFLHNKGIAHRDLKPENILCEHPNQVSPVKICDFGLGSGIKLNGDCSPI STPELLTPCGSAEYMAPEVVEAFSEEASIYDKRCDLWSLGVILYILLSGYPPFVGRCG SDCGWDRGEACPACQNMLFESIQEGKYEFPDKDWAHISCAAKDLISKLLVRDAKQR LSAAQVLQHPWVQGCAPENTLPTPMVLQR |
| **Purity** | > 97% by SDS-PAGE and HPLC analyses. |
| **Usage** | Protein binding assay, small molecule inhibitor screening, substrate of kinase, antigen, ELSA, Western blot, crystallization and co-crystallization study. |
| **Storage** | Upon delivery aliquot and store at -80 centigrade. Avoid multiple freeze-thaw cycles. The protein is stable for 12 months at -80 centigrade, for 2-4 weeks at 4 centigrade. |
| **Concentration** | 0.5 mg/mL |
| **Storage Buffer** | MNK2 D228G, 2 mM DTT, 20% glycerol, 0.02% NaN3, 0.1 mM EDTA, 150 mM NaCl , 50 mM Tris-HCl pH7.5. |

## GENE INFORMATION

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| **Gene Name** | MKNK2 MAPK interacting serine/threonine kinase 2 [ Homo sapiens (human) ] |
| **Official Symbol** | MKNK2 |
| **Synonyms** | MKNK2; MAPK interacting serine/threonine kinase 2; MNK2; GPRK7; MAP kinase-interacting serine/threonine-protein kinase 2; G protein-coupled receptor kinase 7; MAP kinase interacting serine/threonine kinase 2; MAP kinase signal-integrating |

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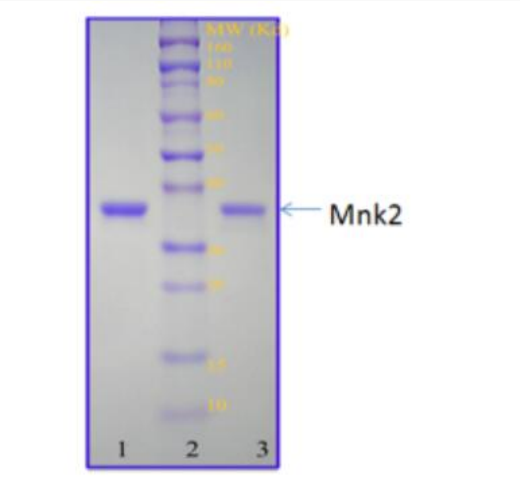
| | kinase 2; MAPK signal-integrating kinase 2; EC 2.7.11.1 |
| **Gene ID** | 2872 |
| **mRNA Refseq** | NM_017572 |
| **Protein Refseq** | NP_060042 |
| **MIM** | 605069 |
| **UniProt ID** | Q9HBH9 |
| **SDS-PAGE** |  |

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