

## HGK recombinant protein

HGK, Active

|                              |                                 |                                     |
|------------------------------|---------------------------------|-------------------------------------|
| CATALOG #<br><b>AAA73672</b> | HOST<br><b>Sf9 insect cells</b> | APPLICATIONS<br><b>Western Blot</b> |
|------------------------------|---------------------------------|-------------------------------------|

### PRODUCT SYNONYMS

HGK; Active; MAP4K4; NIK; FLH21957; FLJ10410; FLJ20373; FLJ90111; KIAA0687; HGK recombinant protein

### PRODUCT SPECIFICATIONS

|                                                     |                                                                                                                                                                                                                                                |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                                | Sf9 insect cells                                                                                                                                                                                                                               |
| Form/Format                                         | Recombinant protein stored in 50mM Tris-HCl, pH7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.                                                                                                            |
| Applicable Applications for HGK recombinant protein | WB (Western Blot), Kinase Assay                                                                                                                                                                                                                |
| Tag                                                 | GST                                                                                                                                                                                                                                            |
| Species                                             | Human                                                                                                                                                                                                                                          |
| Dry Ice Note                                        | The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.                                                                                                                                             |
| Preparation and Storage                             | Store product at -70 degree 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. |

### IMAGES



#### SDS-PAGE

Purity: Sample Purity Data. For specific information on a given lot, see related technical data sheet.



#### Activity

Specific Activity: Sample Kinase Activity Plot. For specific information on a given lot, see related technical data sheet.

### ADDITIONAL INFORMATION

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for HGK recombinant protein | Recombinant human HGK (1-328) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The protein accession number is NP_004825.<br>HGK is the mitogen-activated protein kinase kinase kinase kinase 4(MAP4K4) and a member of the serine/threonine protein kinase family. HGK has been shown to specifically activate MAPK8/JNK (1). The activation of MAPK8 by HGK can be inhibited by dominant-negative mutants of MAP3K7/TAK1, MAP2K4/MKK4, and MAP2K7/MKK7, which suggest that this kinase functions through the MAP3K7-MAP2K4-MAP2K7 kinase cascade and mediates TNF-alpha signaling. HGK-dependent signaling inhibits PPARgamma-responsive gene expression, adipogenesis, and insulin-stimulated glucose transport (2). |
| Product Categories/Family for HGK recombinant protein   | <a href="#">Protein Kinases</a> ; <a href="#">Apoptosis/Autophagy</a> ; <a href="#">Cardiovascular Disease</a> ; <a href="#">Cellular Stress</a> ; <a href="#">Inflammation</a> ; <a href="#">JNK/SAPK Pathway</a> ; <a href="#">Neurobiology</a> ; <a href="#">NfκB Pathway</a> ; <a href="#">Ser/Thr Kinases</a>                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| References                                              | 1. Yao, Z. et.al: A novel human STE20-related protein kinase, HGK, that specifically activates the c-jun N-terminal kinase signaling pathway. J. Biol. Chem. 274: 2118-2125, 1999.<br>2. Tang, X. et.al: An RNA interference-based screen identifies MAP4K4/NIK as a negative regulator of PPAR-gamma, adipogenesis, and insulin-responsive hexose transport. Proc. Nat. Acad. Sci. 103: 2087-2092, 2006.                                                                                                                                                                                                                                                                                                                                            |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                   |
|----------------------------------|-------------------------------------------------------------------|
| NCBI GI #                        | 336020353                                                         |
| NCBI GeneID                      | 9448                                                              |
| NCBI Accession #                 | NP_004825                                                         |
| NCBI GenBank Nucleotide #        | NM_004834                                                         |
| UniProt Accession #              | O95819                                                            |
| Molecular Weight                 | 142kDa                                                            |
| NCBI Official Full Name          | mitogen-activated protein kinase kinase kinase kinase 4 isoform 1 |
| NCBI Official Synonym Full Names | mitogen-activated protein kinase kinase kinase kinase 4           |
| NCBI Official Symbol             | MAP4K4                                                            |
| NCBI Official Synonym Symbols    | HGK; NIK; MEKKK4; FLH21957; HEL-S-31                              |
| NCBI Protein Information         | mitogen-activated protein kinase kinase kinase kinase 4           |
| UniProt Protein Name             | Mitogen-activated protein kinase kinase kinase kinase 4           |
| UniProt Gene Name                | <b>MAP4K4</b>                                                     |
| UniProt Synonym Gene Names       | HGK; KIAA0687; NIK; MEK kinase kinase 4; MEKKK 4                  |
| UniProt Entry Name               | M4K4_HUMAN                                                        |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://stage.aaabiotech.com/map4k4-recombinant-protein-sf9-insect-cells-wb-western-blot-kinase-assay/73672>