

## Recombinant Human MAP2K7 Protein (A2-R419), His/GST tagged

**Cat. No.** MAP2K7-0395H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Product Overview</b> | Recombinant Human 8His-GST-TEV-GG-MAP2K7(A2-R419 end) Protein was expressed in Insect cell.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | A2-R419                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | <p>Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K4/MKK4, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4/MKK4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The monophosphorylation of JNKs on the Thr residue is sufficient to increase JNK activity indicating that MAP2K7/MKK7 is important to trigger JNK activity, while the additional phosphorylation of the Tyr residue by MAP2K4/MKK4 ensures optimal JNK activation. Has a specific role in JNK signal transduction pathway activated by proinflammatory cytokines. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including</p> |

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the release cytochrome c, leading to apoptosis. Part of a non-canonical MAPK signaling pathway, composed of the upstream MAP3K12 kinase and downstream MAP kinases MAPK1/ERK2 and MAPK3/ERK1, that enhances the AP-1-mediated transcription of APP in response to APOE.

|                       |                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Liquid                                                                                                                                                              |
| <b>Endotoxin</b>      | < 0.01 EU per µg of the protein                                                                                                                                     |
| <b>Purity</b>         | 90%                                                                                                                                                                 |
| <b>Stability</b>      | Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.                                                                           |
| <b>Storage</b>        | Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| <b>Storage Buffer</b> | Supplied as sterile 50mM Tris-HCl (pH 7.5), 200mM NaCl, 20% glycerol                                                                                                |
| <b>Shipping</b>       | It is shipped out with blue ice.                                                                                                                                    |

## GENE INFORMATION

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|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | MAP2K7 mitogen-activated protein kinase kinase 7 [ Homo sapiens (human) ]                                                                                                                                                                                                                                                       |
| <b>Official Symbol</b> | MAP2K7                                                                                                                                                                                                                                                                                                                          |
| <b>Synonyms</b>        | MAP2K7; mitogen-activated protein kinase kinase 7; PRKMK7; dual specificity mitogen-activated protein kinase kinase 7; Jnkk2; MKK7; MEK 7; JNKK 2; MAPKK 7; SAPK kinase 4; MAPK/ERK kinase 7; MAP kinase kinase 7; JNK-activating kinase 2; c-Jun N-terminal kinase kinase 2; stress-activated protein kinase kinase 4; MAPKK7; |

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SAPKK4; SAPKK-4;

**Gene ID** 5609**mRNA Refseq** NM\_145185**Protein Refseq** NP\_660186**MIM** 603014**UniProt ID** O14733 Tel: 1-631-559-9269 1-516-512-3133 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA