

Recombinant Human MAP2K7 Protein (A2-R419), Tag Free

Cat. No. MAP2K7-0394H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GG-MAP2K7(A2-R419 end) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	A2-R419
Description	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 the release cytochrome c, leading to apoptosis. Part of a non-canonical MAPK

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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.

Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	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.
Storage Buffer	Supplied as sterile 50mM Tris-HCl (pH 7.5), 200mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	MAP2K7 mitogen-activated protein kinase kinase 7 [Homo sapiens (human)]
Official Symbol	MAP2K7
Synonyms	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; SAPKK4; SAPKK-4;

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Gene ID	5609
mRNA Refseq	NM_145185
Protein Refseq	NP_660186
MIM	603014
UniProt ID	O14733

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