

Human MAPKAPK3 Protein (GST Tag)

Catalog Number: 10683-H09B



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Biological Solution Specialist

General Information

Gene Name Synonym:

3PK; MAPKAP-K3; MAPKAP3; MAPKAPK-3; MK-3; 3PK; AI874665; MAPKAP-K3; MAPKAP3; MapkKapk3; MK-3; MK3

Protein Construction:

A DNA sequence encoding the full length of human MAPKAPK3 (NP_004626.1) (Met 1-Gln 382) was expressed with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human MAPKAPK3/GST chimera consists of 607 amino acids and predicts a molecular mass of 69 kDa which is also estimated by SDS-PAGE.

Formulation:

Supplied as sterile 50mM Tris, 100mM NaCl, pH 7.5, 0.25mM DTT, 0.1mM EDTA, 0.5mM PMSF, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

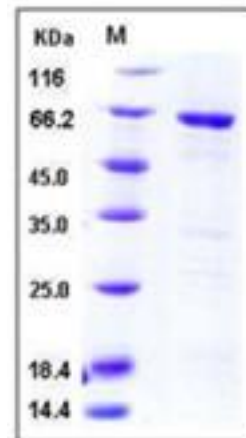
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The MAPKAP kinases are a group of MAP kinase substrates which are themselves kinases. In response to activation, the MAP kinases phosphorylate downstream components on a consensus Pro-X-Ser/Thr-Pro motif. Several kinases that contain this motif have been identified and serve as substrates for the ERK and p38 MAP kinases. Mitogen-activated protein (MAP) kinase-activated protein kinase 3, also known as MAPKAPK-3 and 3pK, is a member of the Ser/Thr protein kinase family. It is widely expressed in human tissues, with a higher expression level observed in heart and skeletal muscle. No expression in brain. MAPKAPK-3 is unique since it was shown to be activated by three members of the MAPK family, namely extracellular-signal-regulated kinase (ERK), p38, and Jun-N-terminal kinase (JNK). It is highly activated both by mitogens and by stress-inducing agents or proinflammatory cytokines, and translocates to the cytoplasm from nucleus. MAPKAPK-3 is exclusively activated via the classical MAPK cascade, while stress-induced activation of MAPKAPK-3 is mainly mediated by p38, however the mechanism defining the specificity remains unknown.

References

1. McLaughlin, M.M. et al., 1996, J. Biol. Chem. 271:8488-8492.
2. Tanoue, T. et al., 2001, EMBO J. 20: 466-479.
3. Neufeld, B. et al., 2000, J. Biol. Chem. 275: 20239-20242.

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