

Human JNK1 / MAPK8 Protein (GST Tag)

Catalog Number: 10795-H09B



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Biological Solution Specialist

General Information

Gene Name Synonym:

JNK; JNK-46; JNK1; JNK1A2; JNK21B1/2; PRKM8; SAPK1; SAPK1c; AI849689; JNK; JNK1; Prkm8; SAPK1

Protein Construction:

A DNA sequence encoding the full length of human MAPK8 isoform JNK1 alpha 2 (NP_620637.1) (Met 1-Arg 427) 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:

No Kinase Activity

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 MAPK8/GST chimera consists of 652 amino acids and predicts a molecular mass of 75 kDa. It migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 25% 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:

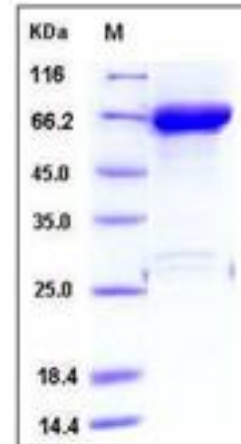
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Mitogen-activated protein kinase 8 (MAPK8), also known as JNK1, is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The protein kinases JNK1 has been found to serve as critical molecular links between obesity, metabolic inflammation, and disorders of glucose homeostasis. It is critically involved in the promotion of diet-induced obesity, metabolic inflammation and beta-cell dysfunction. The selective deficiency of JNK1 in the murine nervous system is sufficient to suppress diet-induced obesity. Genetic analysis indicates that the effects of JNK1 can be separated from effects of JNK1 on obesity. JNK1 is a potential pharmacological target for the development of drugs that might be useful for the treatment of metabolic syndrome, and type 2 diabetes. Furthermore, JNK1 plays a major role in the hypoxic cellular damage. JNK1 protein might be an attractive target for antihypoxic therapy in increasing resistance to many pathological conditions and diseases, leading to the oxygen deficit.

References

1. Betigeri S, *et al.* (2006) JNK1 as a molecular target to limit cellular mortality under hypoxia. *Mol Pharm.* 3(4): 424-30.
2. Solinas G, *et al.* (2010) JNK1 and IKKbeta: molecular links between obesity and metabolic dysfunction. *FASEB J.* 24(8): 2596-611.
3. Sabio G, *et al.* (2010) Role of the hypothalamic-pituitary-thyroid axis in metabolic regulation by JNK1. *Genes Dev.* 24(3): 256-64.

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