

Recombinant Mouse Dual specificity mitogen-activated protein kinase kinase 4(Map2k4)

Catalog No: #AP70524

Package Size: #AP70524-1 20ug #AP70524-2 100ug #AP70524-3 1mg

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Description

Product Name	Recombinant Mouse Dual specificity mitogen-activated protein kinase kinase 4(Map2k4)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:2-397aSequence Info:Full Length
Other Names	C-JUN N-terminal kinase kinase 1 ;JNK kinase 1 ;JNKK 1JNK-activating kinase 1MAPK,ERK kinase 4 ;MEK 4SAPK,ERK kinase 1 ;SEK1
Accession No.	P47809
Calculated MW	60 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	AAPSPSGGGGSGGGGGTGPPIGPPASGHPAVSSMQGKRKALKLNANPPVKSTARFTLNPNTTGVQNPHIE RLRTHSIESSGKLKISPEQHWDFTAEDLDLGEIGRGAYGSVNKMVHKPSGQIMAVKRIRSTVDEKEQKQLLM DLDVVMRSDCPYIVQFYGALFREGDCWICMELMSTSFDFKYKYVYSLDDVPIEEILGKITLATVKALNHLKEN LKIHRDIKPSNILLDRSGNIKLCDFGISGQLVDSIAKTRDAGCRPYMAPERIDPSASRQGYDVRSDVWSLGLITLY ELATGRFPYPKWNSVFDQLTQVVKGDPPQLSNSEEREFSFINFVNLCLTKDESKRPKYKELLKHPFILMYEE RTVEVACYVCKILDQMPATPSSPMYVD
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

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 MAP2K7,MKK7, 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 shows preference for phosphorylation of the Tyr residue and MAP2K7,MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7,MKK7 ses to be the prerequisite for JNK activation at least in response to proinflammatory cytokines, while other stimuli activate both MAP2K4,MKK4 and MAP2K7,MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK,JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7,MKK7 exclusively activates JNKs, MAP2K4,MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.

References

Cardiac-specific deletion of mkk4 reveals its role in pathological hypertrophic remodeling but not in physiological cardiac growth.Liu W., Zi M., Jin J.,

Note: This product is for in vitro research use only and is not intended for use in humans or animals.