

ProQinase™ JNK2

Mitogen-activated protein kinase 9

Recombinant Human Active Protein Kinase

HGNC Symbol: MAPK9

Synonyms: MAPK9, JNK2A, JNK2B, JNK2BETA, JNK-55, p54a, p54aSAPK, PRKM9, SAPK, JNK2-a2

Product No.: 0459-0000-1

Lot: 003

Description: Human JNK2, full length, amino acids M₁-Y₄₂₄ (as in NCBI/Protein entry NP_002743.1), activated, untagged, expressed in E.coli

Product identity: JNK2 Lot 003, was confirmed as JNK2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 49,600 Da

Expression host: E.coli

Purification: Immobilized Metal Affinity Chromatography

Activation: With MKK7 / MEKK2

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 20% glycerol

Storage temperature: -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.683 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

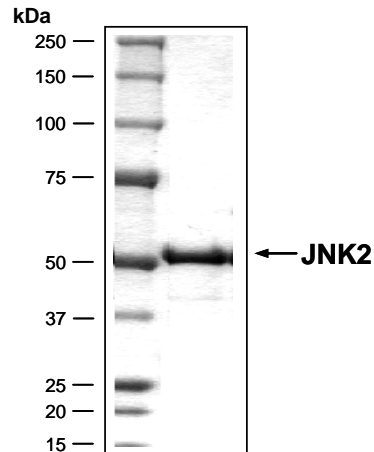
Specific kinase activity (P_i transfer): 956 pmol/µg×min

ATP-K_M: 1.4 µM

Additional assay technology: JNK2 Lot 003

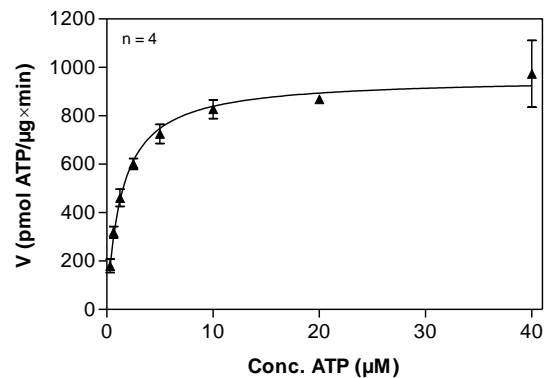
was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

JNK2 Lot 003: Coomassie stain



2.0 µg JNK2

JNK2 Lot 003: Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg / ml PEG_{20,000}
 - ATP (variable)
 - Substrate: rec. c-JUN, 100 µg/ml
 - JNK2: 0.1 µg/ml
- Filter binding assay
 - MSFC membrane (Millipore)



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JNK2 Recombinant Protein Amino Acid Sequence							
1	GAMSDSKCDS	QFYSVQVADS	TFTVLKRYQQ	LKPIGSGAQQ	IVCAAFDTVL	GINVAVKKLS	60
61	RPFQNTTHAK	RAYRELVLLK	CVNHKNIISL	LNVFTPQKTL	EEFQDVYLM	ELMDANLCQV	120
121	IHMELDHERM	SYLLYQMLCG	IKHLHSAGII	HRDLKPSNIV	VKSDCTLKIL	DFGLARTACT	180
181	NEMMTPYVVT	RYRAPEVIL	GMGYKENVDI	WSVGCIMGEL	VKGCVIFQGT	DHIDQWNKVI	240
241	EQLGTPSAEF	MKKLQPTVRN	YVENRPRYPG	IKFEELFPDW	IFPSESERDK	IKTSQARDLL	300
301	SKMLVIDPDK	RISVDEALRH	PYITVWYDPA	EAEAPPPQIY	DAQLEEREHA	IEEWKELIYK	360
361	EVMDWEERSK	NGVVKDQPSD	AAVSSNATPS	QSSSINDISS	MSTEQTLASD	TDSSLDASTG	420
421	PLEGCRGKGE	FQHTGGRY					480

blue: JNK2

JNK2 wt ¹ Amino Acid Sequence							
1	MSDSKCD SQF	YSVQVADSTF	TVLKRYQQLK	PIGSGAQGIV	CAAFDTVLGI	NVAVKKLSRP	60
61	FQNTTHAKRA	YRELVLLKCV	NHKNIISLLN	VFTPQKTL EE	FQDVYLMEL	MDANLCQVIH	120
121	MELDHERMSY	LLYQMLCGIK	HLHSAGIIHR	DLKPSNIVVK	SDCTLKILDF	GLARTACTNF	180
181	MTPYVVTRY	YRAPEVILGM	GYKENVDIWS	VGCIMGELVK	GCVIFQGTDH	IDQWNKVIEQ	240
241	LGTPSAEFMK	KLQPTVRNYV	ENRPRYPGIK	FEELFPDWIF	PSESERDKIK	TSQARDLLSK	300
301	MLVIDPDKRI	SVDEALRHPY	ITVWYDPAEA	EAPPPQIYDA	QLEEREHAIE	EWKELIYKEV	360
361	MDWEERSKNG	VVKDQPSDAA	VSSNATPSQS	SSSINDISSMS	TEQTLASDTD	SSLDASTGPL	420
421	EGCR						480

blue: JNK2 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_002743.1

Recombinant Proteins