

## JNK1

mitogen-activated protein kinase 8

Recombinant Human Active Protein Kinase

HGNC Symbol: MAPK8

Synonyms: PRKM8, SAPK1

Product No.: 0458-0000-1

Lot: 005

**Description:** Human JNK1, full length, amino acids M<sub>1</sub>-Q<sub>384</sub> (as in [NCBI/Protein](#) entry NP\_002741.1), activated, untagged, expressed in E.coli

**Product identity:** JNK1, Lot 005, was confirmed as JNK1 by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW**<sub>Fusion Protein</sub>: 44,292 Da 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:** 0.513 µg/µl

(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Biochemical Parameters:**

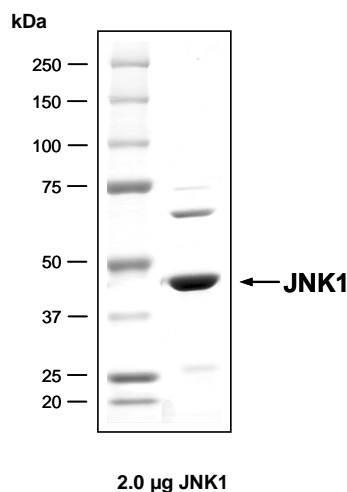
Specific kinase activity (P<sub>i</sub> transfer): 2514 pmol/µg x min

ATP-K<sub>M</sub>: 1 µM

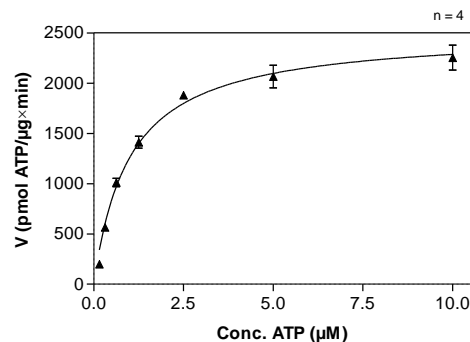
**Additional assay technology:**

JNK1 Lot 005 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega  
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

**JNK1 Lot 005:**  
Coomassie stain



**JNK1 Lot 005:**  
Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



**Determination of K<sub>M</sub> value & Specific activity:**

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg/ml PEG<sub>20,000</sub>
  - ATP (variable)
  - Substrate: recombinant c-JUN 100 µg/ml
  - Kinase: 100 ng/ml
- Filter binding assay  
MSFC membrane (Millipore)

# JNK1

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JNK1 Recombinant Fusion Protein Amino Acid Sequence							
1	GAMSRSKRDN	NFYSVEIGDS	TFTVLKRYQN	LKPIGSGAQG	IVCAAYDAIL	ERNVAIKKLS	60
61	RPFQNTTHAK	RAYRELVLMK	CVNHKNIIGL	LNVFTPQKSL	EEFQDVYIVM	ELMDANLCQV	120
121	IQMELDHERM	SYLLYQMLCG	IKHLHSAGII	HRDLKPSNIV	VKSDCTLKIL	DFGLARTAGT	180
181	SFMMTPYVVT	RYRAPEVIL	GMGYKENVDL	WSVGCIMGEM	VCHKILFPGR	DYIDQWNKVI	240
241	EQLGTPCPEF	MKKLQPTVRT	YVENRPKYAG	YSFEKLFDPV	LFPADSEHNK	LKASQARDLL	300
301	SKMLVIDASK	RISVDEALQH	PYINVWYDPS	EAEAPPKIP	DKQLDEREHT	IEEWKELIYK	360
361	EVMDLEERTK	NGVIRGQPS	LAQVQQ				420

1-2: legacy from TEV cleavage **blue**: JNK1

JNK1 wt <sup>1</sup> Amino Acid Sequence							
1	MSRSKRDN	YSVEIGDSTF	TVLKRYQNLK	PIGSGAQGIV	CAAYDAILER	NVAIKKLSRP	60
61	FQNTTHAKRA	YRELVLMKCV	NHKNIIGLLN	VFTPQKSLEE	FQDVYIVMEL	MDANLCQVIQ	120
121	MELDHERMSY	LLYQMLCGIK	HLHSAGIIHR	DLKPSNIVVK	SDCTLKILDF	GLARTAGTSE	180
181	MMPYVVTTRY	YRAPEVILGM	GYKENVDLWS	VGCIMGEMVC	HKILFPGRDY	IDQWNKVIEQ	240
241	LGTPCPEFMK	KLQPTVRTYV	ENRPKYAGYS	FEKLFDPVLF	PADSEHNKLN	ASQARDLLSK	300
301	MLVIDASKRI	SVDEALQHPY	INVWYDPSEA	EAPPKIPDK	QLDEREHTIE	EWKELIYKEV	360
361	MDLEERTKNG	VIRGQPSPLA	QVQQ				420

**blue**: JNK1 sequence expressed in recombinant protein

<sup>1</sup>[NCBI/Protein](#) accession number NP\_002741.1

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