

Certificate of Analysis

p38-beta

Mitogen-activated protein kinase 11

Recombinant Human Active Protein Kinase

Synonyms: MAPK11; PRKM11; SAPK2 ;SAPK2B

Product No.: 0455-0000-3

Lot: 004

Description: Human p38-beta, full length, amino acids M₁-Q₃₆₄ (as in NCBI/Protein entry NP_002742.3), activated, untagged, expressed in E. coli

Product identity: p38-beta, Lot 004, was confirmed as p38-beta by mass spectroscopy LC-ESI-MS/MS (Protagen AG, Germany)

Theoretical MW_{Fusion Protein}: 41,485 Da

Expression: E.coli

Activation: With MKK6 SDTD

Purification: Immobilized Metal Affinity Chromatography

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 3 mM βME, 20% glycerol

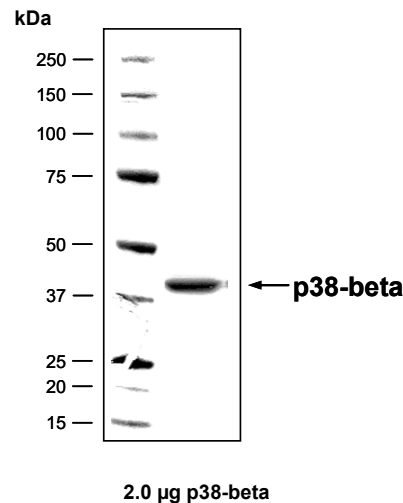
Storage temperature: -80°C

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!

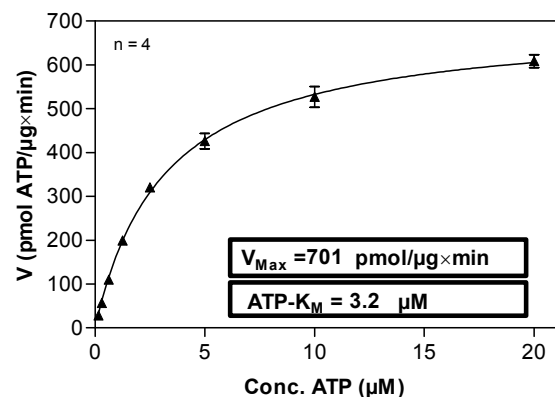
Protein concentration: 0.810 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Specific activity: 701 pmol/µg×min

Coomassie stain:



Determination of 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. ATF2, 200 µg / ml
 - p38-beta: 1.0 µg / ml
- Filter binding assay
 - MSFC membrane (Millipore)

Additional assay technology: p38-beta Lot 004

was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from

p38-beta

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p38-beta Recombinant Fusion Protein Amino Acid Sequence								
1	G	AMSGPRAGF	YRQELNKTIVW	EVPQRLQGLR	PVGSAGYGSV	CSAYDARLRQ	KVAVKKLSRP	60
61	F	QSLIHARTT	YRELRLKHL	KHENVIGLLD	VFTPATSIED	FSEVYLVTTL	MGADLNNIVK	120
121	C	QALSDEHVQ	FLVYQLLRGL	KYIHSAGIIH	RDLKPSNVAV	NEDCELRLID	FGLARQADEE	180
181	M	TGYVATRWY	RAPEIMLNWM	HYNQTVDIWS	VGCIMAELLQ	GKALFPGSDY	IDQLKRIMEV	240
241	V	GTPSPEVLA	KISSEHARTY	IQSLPPMPQK	DLSSIFRGAN	PLAIDLLGRM	LVLDSQQRVS	300
301	A	EALAHAYF	SQYHDPEDP	EAEPYDESVE	AKERTLEEWK	ELTYQEVLSF	KPPEPKPPG	360
361	S	L	E	I	E	Q		420

1-2: leagcy from TEV cleavage **blue: MAPK11**

p38-beta wt ¹ Amino Acid Sequence								
1	M	MSGPRAGFYR	QELNKTIVWEV	PQRLQGLRPV	GSGAYGSVCS	AYDARLRQKV	AVKKLSRPFQ	60
61	S	LIHARRTYR	ELRLKHLKH	ENVIGLLDVF	TPATSIEDFS	EVYLVTTLMG	ADLNNIVKCO	120
121	A	LSDEHVQFL	VYQLLRGLKY	IHSAGIIHRD	LKPSNVAVNE	DCELRILDFG	LARQADEEMT	180
181	G	YVATRWYRA	PEIMLNWMHY	NQTVDIWSVG	CIMAELLQK	ALFPGSDYID	QLKRIMEVVG	240
241	T	PSPEVLAKI	SSEHARTYIQ	SLPPMPQKDL	SSIFRGANPL	AIDLLGRMLV	LDSDQQRVSAA	300
301	E	ALAHAYFSQ	YHDPEDPEPA	EPYDESVEAK	ERTLEEWKEL	TYQEVLSFKP	PEPPKPPGSL	360
361	E	I	E	Q				420

blue: p38-beta sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_002742.3

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