

ProQinase™ p38-delta

mitogen-activated protein kinase 13

Recombinant Human Active Protein Kinase

HGNC Symbol: MAPK13

Synonyms: p38d, SAPK4, PRKM13

Product No.: 0941-0000-1

Lot: 001

Description: Human p38-delta, full length, amino acids M₁-L₃₆₅ (as in [NCBI/Protein](#) entry NP_002745.1), activated, untagged, expressed in E.coli

Product identity: p38-delta Lot 001, was confirmed as p38-delta by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 42430 Da

Expression host: E.coli

Purification: GST-Affinity Chromatography

Activation: With MKK6

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

Storage temperature: -80°C

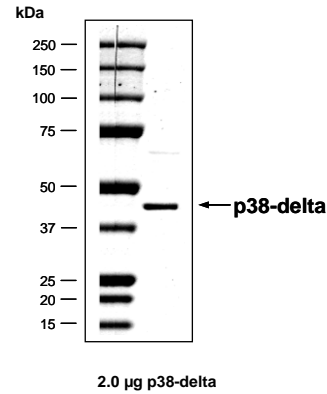
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.468 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

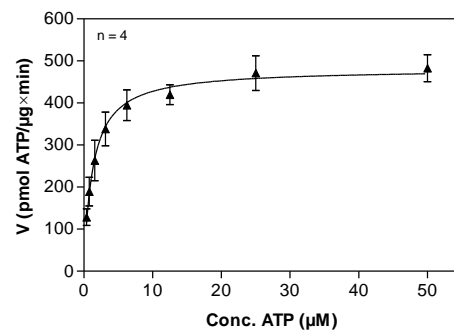
Biochemical Parameters:

Specific kinase activity (P_i transfer): 481 pmol/µg x min
ATP-K_M: 1.3 µM

**p38-delta Lot 001:
Coomassie stain**



**p38-delta Lot 001:
Determination of V_{max} and K_M value for ATP**



- 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: ATF2 2 µg/ml
 - Kinase: 0.1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Recombinant Proteins

Sequence information

p38-delta Recombinant Fusion Protein Amino Acid Sequence							
1	GPLGSM	SLIR	KKGFYKQDVN	KTAWELPKTY	VSPTHVGS	GA YGSVCSAIDK RSGEKVAIKK	60
61	LSRPFQSEIF	AKRAYRELL	LKHMQHENVI	GLLDVFTPAS	SLRNFYDFYL	VMPFMQTDLQ	120
121	KIMGMEFSEE	KIQYLVYQML	KGLKYIHSAG	VVHRDLKPGN	LAVNEDCELK	ILDFGLARHA	180
181	DAEMTGYVVT	RWYRAPEVIL	SWMHYNQTV	IWSVGCIMAE	MLTGKTLFKG	KDYLDQLTQI	240
241	LKVTGVPGTE	FVQKLNKAA	KSYIQSLPQT	PRKDFTQLFP	RASPQAADLL	EKMLELDVVK	300
301	RLTAAQALH	PFEPFRDPE	EETEAQQPFD	DSLEHEKLT	TV DEWKQHIYKE	IVNFSPIARK	360
361	DSRRRSGM	KL					420

1-5: legacy of 3C cleavage **blue**: p38-delta

p38-delta wt ¹ Amino Acid Sequence							
1	MSLIRK	KGFY	KQDVNKT	AWELPKTY	VSPTHVGS	GA SAIDKRSGEK VAIKKLSRPF	60
61	QSEIFAKRAY	RELLLLKHM	Q HENVIGLLDV	FTPASSLRNF	YDFYLVMPFM	QTDLQKIMG	120
121	EFSEEKIQYL	VYQMLKGLKY	IHSAGVVHRD	LKPGNLAVNE	DCELKILDFG	LARHADAEMT	180
181	GYVTRWYRA	PEVILSWMHY	NQTVDIWSVG	CIMAEMLTGK	TLFKGKDYL	QLTQILKVTG	240
241	VPGTEFVQKL	NDKAAKSYIQ	SLPQTPRKDF	TQLFPRASPQ	AADLLEKMLE	LDVVKRLTAA	300
301	QALHPPFFEP	FRDPEEETEA	QQPFDDSL	EH EKLTVDEWKQ	HIYKEIVNFS	PIARKDSRRR	360
361	SGM	KL					420

blue: p38-delta sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_002745.1