

MAPKAPK2

mitogen-activated protein kinase-activated protein kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: MAPKAPK2

Synonyms: n/a

Product No.: 0937-0000-1

Lot: 004

Description: Human MAPKAPK2, full length, amino acids M₁-L₃₇₀ (as in [NCBI/Protein](#) entry NP_004750.1), untagged, activated, expressed in Sf9 insect cells

Product identity: MAPKAPK2, Lot 004, was confirmed as MAPKAPK2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 42,329 Da

Expression host: Sf9 insect cells

Purification: Immobilized Metal Affinity Chromatography

Activation: with MKK6-SDTD / p38-alpha

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

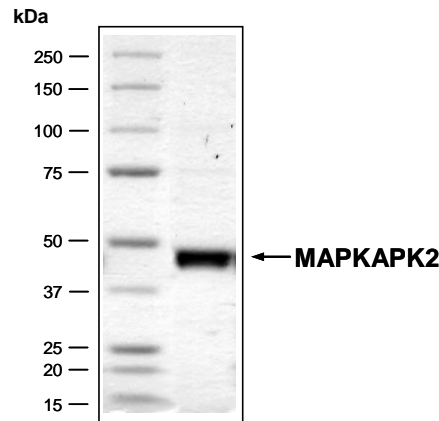
Biochemical Parameters:

Specific kinase activity (P_i transfer): 101 pmol/µg × min
ATP-K_M: 0.51 µM

Additional assay technology:

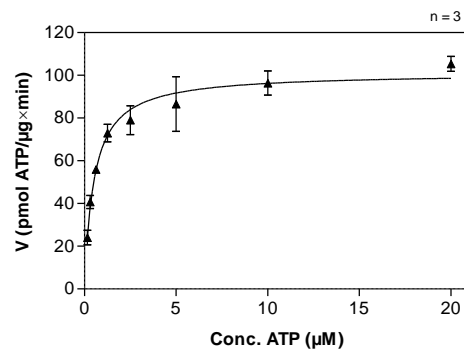
MAPKAPK2 Lot 004 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

MAPKAPK2 Lot 004: Coomassie stain



2.0 µg MAPKAPK2

MAPKAPK2 Lot 004: 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: CHKtide 40 µg/ml
 - Kinase: 0.5 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

MAPKAPK2

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MAPKAPK2 Recombinant Fusion Protein Amino Acid Sequence											
1	G	A	M	L	S	N	S	Q	G	Q	60
61	I	I	D	D	Y	K	V	T	S	Q	120
121	R	I	V	D	V	Y	E	N	L	Y	180
181	S	I	N	I	A	H	R	D	V	K	240
241	K	Y	D	K	S	C	D	M	W	S	300
301	K	M	L	I	R	N	L	L	K	T	360
361	K	N	S	D	Q	A	T	W	L	T	420

1-2: legacy of TEV cleavage **blue**: MAPKAPK2

MAPKAPK2 wt ¹ Amino Acid Sequence											
1	M	L	S	N	S	Q	G	Q	S	P	60
61	D	D	Y	K	V	T	S	Q	V	L	120
121	V	D	V	Y	E	N	L	Y	A	G	180
181	N	I	A	H	R	D	V	K	P	E	240
241	D	K	S	C	D	M	W	S	L	G	300
301	L	I	R	N	L	L	K	T	E	P	360
361	S	D	Q	A	T	W	L	T	R	L	420

blue: MAPKAPK2 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_004750.1

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