

ProQinase™ ASK2

mitogen-activated protein kinase kinase kinase 6

Recombinant Human Active Protein Kinase

HGNC Symbol: MAP3K6

Synonyms: MAPKKK6, MEKK6

Product No.: 2017-0000-1

Lot: 001

Description: Human ASK2, internal fragment, amino acids E₆₃₀-H₉₂₀ (as in [NCBI/Protein](#) entry NP_004663.3), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: ASK2 Lot 001, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 60507 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: in vitro auto activation

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 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 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

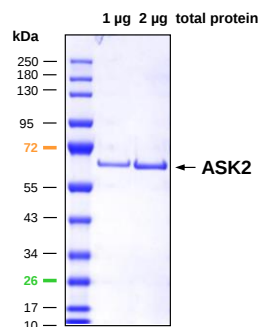
Protein concentration: 0.782 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

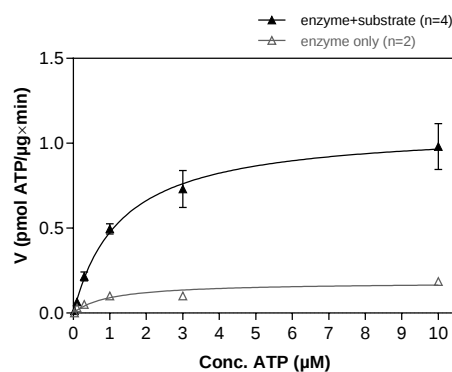
Specific kinase activity (P_i transfer): 1.1 pmol/µg*min

ATP-K_M: 1.3 µM

ASK2 Lot 001: Coomassie stain



ASK2 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: RBER-GSK3 40 µg/ml
 - Kinase: 4 µg/ml

Assay technology:
Radiometric filter binding assay
MSFC membrane (96 well plate, Millipore)

Sequence information

GST-ASK2 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RDSLEVLFGG	240
241	PEEAEGAGEM	LEFDYEYETET	GERLVLGKGT	YGVVYAGRDR	HTRVRIAIKE	IPERDSRFSQ	300
301	PLHEEIALHR	RLRHKNIVRY	LGSASQGGYL	KIFMEEVPGG	SLSSLLRSVW	GPKDNSTI	360
361	SFYTRQILQG	LGYLHDNHIV	HRDIKGDNLV	INTFSGLLKI	SDFGTSKRLA	GITPCTETFT	420
421	GTLQYMAPEI	IDQGPRGYGK	AADIWSLGT	VIEMATGRPP	FHELGSPQAA	MFQVGMVKVH	480
481	PPMPSSLSAE	AQAFLLRTFE	PDPRLRASAQ	TLLGDPFLQP	GKRSRSPSSP	RH	540

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: ASK2 fragment

ASK2 wt¹ Amino Acid Sequence

1	MAGPCPRSGA	ERAGSCWQDP	LAVALSRGRQ	LAAPPGRGCA	RSRPLSVVYV	LTREPQPGLE	60
61	PREGTEAEPL	PLRCLREACA	QVPRPRPPPQ	LRLSLPFGTLE	LGDTAALDAF	YNADVVLLEV	120
121	SSSLVQPSLF	YHLGVRESFS	MTNNVLLCSQ	ADLPDLQALR	EDVFQKNSDC	VGSYTLIPYV	180
181	VTATGRVLCG	DAGLLRGLAD	GLVQAGVGTE	ALLTPLVGRL	ARLLEATPTD	SCGYFRETI	240
241	RDIRQARERF	SGPQLRQELA	RLQRRLDSE	LLSPDIIMNL	LLSYRDVQDY	SAIIELVETL	300
301	QALPTCDVAE	QHNVCFHYTE	ALNRRNRPGD	RAKALSVLLP	LVQLEGSVAP	DLYCMCGRIY	360
361	KDMFFSSGFQ	DAGHREQAYH	WYRKAFDVEP	SLHSGINAAV	LLIAAGQHFE	DSKELRLIGM	420
421	KLGCLLARKG	CVEKMQYYWD	VGfYLGAIIL	ANDPTQVVL	AEQLYKLNAP	IWYLVSVMET	480
481	FLLYQHFRPT	PEPPGGPPRR	AHFWLHFLQ	SCQPFKTACA	QGDQCLVLVL	EMNKVLLPAK	540
541	LEVRGTDVPS	TVTSLLEPE	TQDIPSSWTF	PVASICGVSA	SKRDERCCFL	YALPPAQDVQ	600
601	LCFSPVGHQ	WFCGLIQAWV	TNPDSTAPAE	EAEGAGEMLE	FDYEYETETGE	RLVLGKGTYG	660
661	VVYAGRDRHT	RVRIAIKEIP	ERDSRFSQPL	HEEIALHRRL	RHKNIVRYLG	SASQGGYLKI	720
721	FMEEVPGGSL	SSLLRSVWGP	LKDNSTISF	YTRQILQGLG	YLHDNHIVHR	DIKGDNLIN	780
781	TFSGLLKISD	FGTSKRLAGI	TPCTETFTGT	LQYMAPEIID	QGPRGYGKAA	DIWSLGCTVI	840
841	EMATGRPPFH	ELGSPQAAMF	QVGMVKVHPP	MPSSLSAEAQ	AFLLRTEFPD	PRLRASQTL	900
901	LGDPFLQPGK	RSRSPSSPRH	APRPSDAPSA	SPTPSANSTT	QSQTFFCPQA	PSQHPPSPPK	960
961	RCLSYGGTSQ	LRVPEEPAAE	EPASPEESSG	LSLLHQESKR	RAMLAADVLEQ	ELPALAENLH	1020
1021	QEQQEQGAR	LGRNHVEELL	RCLGAHIHTP	NRRQLAQELR	ALQGRRLAQG	LGPALLHRPL	1080
1081	FAFPDAVKQI	LKRQRIRPHW	MFVLDLSLSR	AVRAALGVLG	PEVEKEAVSP	RSEELSNEGD	1140
1141	SQQSPGQOSP	LPVEPEQGPA	PLMVQLSLR	AETDRLREIL	AGKEREYQAL	VQRALQRLNE	1200
1201	EARTYVLAPE	PPTALSTDQG	LVQWLQELNV	DSGTIQMLLN	HSFTLHTLLT	YATRDDLITY	1260
1261	RIRGGMVCRI	WRILAQRAG	STPVTSGP				1320

blue: ASK2 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_004663.3