

PAK2

p21 (CDKN1A)-activated kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: PAK2

Synonyms: PAK65; PAKgamma; hPAK65; S6/H4K

Product No.: 0304-0000-1

Lot: 001

Description: Human PAK2, amino acids D₃-R₅₂₄ (as in [NCBI/Protein](#) entry NP_002568.2), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PAK2 Lot 001, was confirmed as PAK2 by specific Western Blotting

Theoretical MW_{Fusion Protein}: 87,954 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM TRIS-HCl pH 8.0, 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 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.403 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

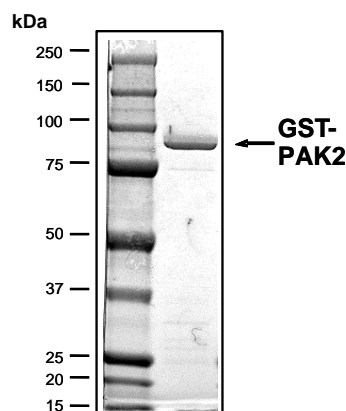
Biochemical Parameters:

Specific kinase activity (P_i transfer): 228 pmol/µg × min
ATP-K_M: 37 µM

Additional assay technology:

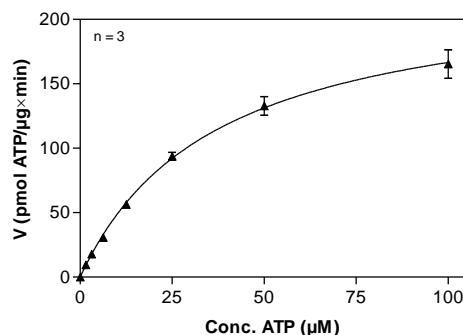
PAK2 Lot 001 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

PAK2 Lot 001: Coomassie stain



2.0 µg GST-PAK2

PAK2 Lot 001: 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: Tetra(LRRWSLG), 100 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
 - MSPH membrane (Millipore)

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GST-PAK2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARGIQAS	MCDNGELEDK	PPAPPVRMSS	TIFSTGGKDP	LSANHSLKPL	300
301	PSVPEEKKPR	HKIISIFSGT	EKGSKKKEKE	RPEISPPSDF	EHTIHVGFDA	VTGEFTGMPE	360
361	QWARLLQTSN	ITKLEQKKNP	QAVLDVLKFY	DSNTVKQKYL	SFTPPEKDF	PSGTPALNAK	420
421	GTEAPAVVTE	EEDDDEETAP	PVIAPRPDHT	KSIYTRSVID	PVPAPVGDSH	VDGAAKSLDK	480
481	QKKKTKMTDE	EIMEKLRTIV	SIGDPKKKYT	RYEKIGQGAS	GTVFTATDVA	LGQEVAIKQI	540
541	NLQKQPKKEL	IINEILVMKE	LKNPNIVNFL	DSYLVGDELF	VVMEYLAGGS	LTDVVTETCM	600
601	DEAQIAAVCR	ECLQALEFLH	ANQVIHRDIK	SDNVLLGMEG	SVKLTDFGFC	AQITPEQSKR	660
661	STMVGTPTYWM	APEVVTRKAY	GPKVDIWSLG	IMAIEMVEGE	PPYLNENPLR	ALYLIATNGT	720
721	PELQNPPEKLS	PIFRDFLNRC	LEMDVEKRG	AKELLQHPFL	KLAKPLSSLT	PLIMAAKEAM	780
781	KSNR						840

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: PAK2

PAK2 wt ¹ Amino Acid Sequence							
1	MCDNGELEDK	PPAPPVRMSS	TIFSTGGKDP	LSANHSLKPL	PSVPEEKKPR	HKIISIFSGT	60
61	EKGSKKKEKE	RPEISPPSDF	EHTIHVGFDA	VTGEFTGMPE	QWARLLQTSN	ITKLEQKKNP	120
121	QAVLDVLKFY	DSNTVKQKYL	SFTPPEKDF	PSGTPALNAK	GTEAPAVVTE	EEDDDEETAP	180
181	PVIAPRPDHT	KSIYTRSVID	PVPAPVGDSH	VDGAAKSLDK	QKKKTKMTDE	EIMEKLRTIV	240
241	SIGDPKKKYT	RYEKIGQGAS	GTVFTATDVA	LGQEVAIKQI	NLQKQPKKEL	IINEILVMKE	300
301	LKNPNIVNFL	DSYLVGDELF	VVMEYLAGGS	LTDVVTETCM	DEAQIAAVCR	ECLQALEFLH	360
361	ANQVIHRDIK	SDNVLLGMEG	SVKLTDFGFC	AQITPEQSKR	STMVGTPTYWM	APEVVTRKAY	420
421	GPKVDIWSLG	IMAIEMVEGE	PPYLNENPLR	ALYLIATNGT	PELQNPPEKLS	PIFRDFLNRC	480
481	LEMDVEKRG	AKELLQHPFL	KLAKPLSSLT	PLIMAAKEAM	KSNR		540

blue: PAK2 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_002568.2

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