

PBK

PDZ binding kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: PBK

Synonyms: TOPK, FLJ14385; NORI-3; SPK; MAPKK-like protein kinase

Product No.: 0185-0000-2

Lot: 003

Description: Human PBK, full length, amino acids M₁-V₃₂₂ (as in [NCBI/Protein](#) entry NP_060962.2), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PBK, Lot 003, was confirmed as PBK by specific Western Blotting

Theoretical MW_{Fusion Protein}: 67,521 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: By treatment of the expressing cells with Octadecanoic acid

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

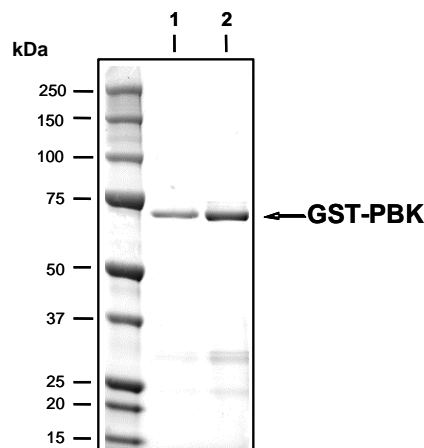
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.256 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

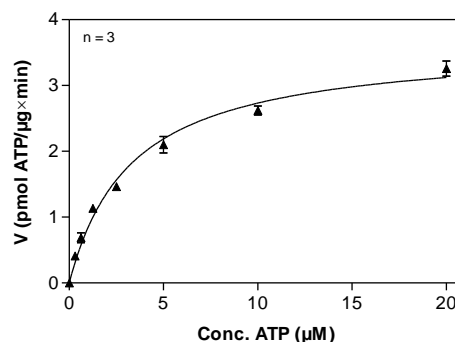
Specific kinase activity (P_i transfer): 3.6 pmol/µg × min
ATP-K_M: 3.3 µM

PBK Lot 003: Coomassie stain



1.0 µg / 2.0 µg GST-PBK

PBK Lot 003: 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: Histone H1, 20 µg/ml
 - PBK: 4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-PBK Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQG WQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSRNSCSP	GDPLVWLF TM	EGISNFKTPS	KLSEKKKSVL	CSTPTINIPA	300
301	SPFMQKLGF	TGVNVYLMKR	SPRGLSHSPW	AVKKINPICN	DHYRSVYQKR	LMDEAKILKS	360
361	LHHPNIVGYR	AFTEASDGSL	CLAMEYGGEK	SLNDLIEERY	KASQDPFPA	IILKVALNMA	420
421	RGLKYLHQEK	KLLHGDIKSS	NVVIKGFET	IKICDVGVS	PLDENMTVTD	PEACYIGTEP	480
481	WKPKEAVEEN	GVITDKADIF	AFGLTLWEMM	TLSIPHINLS	NDDDDDEKTF	DESDFDDEAY	540
541	YAALGTRPPI	NMEELDES YQ	KVIELFSVCT	NEDPKDRPSA	AHIVEALET D	VMKPHG	600

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

PBK wt ¹ Amino Acid Sequence							
1	MEGISNFKTP	SKLSEKKKSV	LCSTPTINIP	ASPFMQKLG F	GTGVNVYLMK	RSPRGLSHSP	60
61	WAVK KINPIC	NDHYRSVYQK	RLMDEAKILK	SLHHPNIVGY	RAFTEANDGS	LCLAMEYGGE	120
121	KSLNDLIEER	YKASQDPFPA	A IILKVALNM	ARGLKYLHQE	KKLLHGDIKS	SNVVIKDFE	180
181	TIKICDVGVS	LPLDENMTVT	DPEACYIGTE	PWKPKAEVEE	NGVITDKADI	FAFGLTLWEM	240
241	M TLSIPHINL	SNDDDDDKT	FDESDFDEA	YYAALGTRPP	INMEELDES Y	QKVIELFSVC	300
301	TNEDPKDRPS	AAHIVEALET	DV				360

blue: PBK sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_060962.2