

ProQinase™ PI4K2B

phosphatidylinositol 4-kinase type 2 beta

Recombinant Human Active Lipid Kinase

HGNC Symbol: PI4K2B

Synonyms: PI4KIIB, PI4KII-BETA, PIK42B

Product No.: 1219-0000-1

Lot: 001

Description: Human PI4K2B, full length, amino acids M₁-W₄₈₁ (as in NCBI/Protein entry NP_060793.2), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: PI4K2B Lot 001, was confirmed as PI4K2B by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 83,029 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography

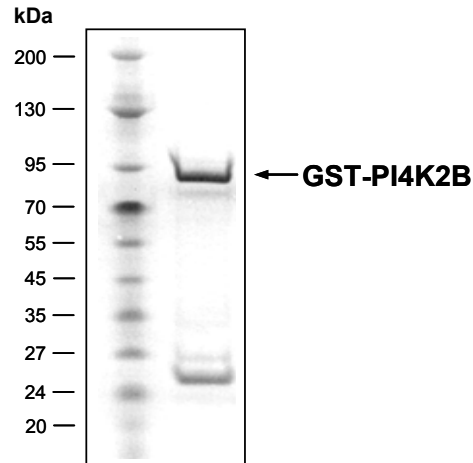
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol

Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

Protein concentration: 0.241 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

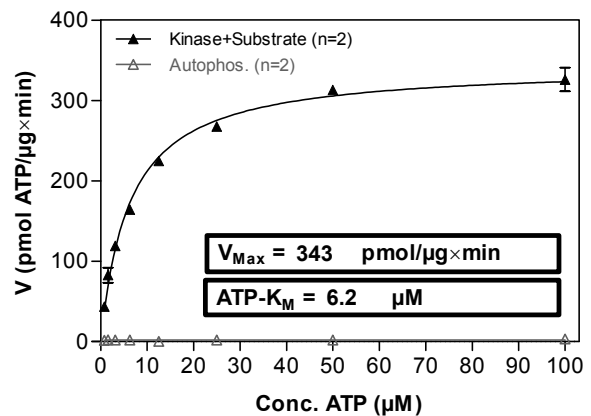
Biochemical Parameters:
Specific activity: 343 pmol/µg×min
ATP-K_M: 6 µM

PI4K2B Lot 001: Coomassie stain



2.0 µg GST-PI4K2B

PI4K2B Lot 001: Determination of V_{max} and K_M value for ATP ADP-Glo™ Kinase Assay / Promega



Determination of K_M value & Specific activity:

• Assay conditions:
60 mM HEPES-NaOH, pH 7.5
3 mM MnCl₂
3 µM Na-orthovanadate
1.2 mM DTT
ATP (variable)
Substrate: PI: 25 µM / PS: 225 µM
PI: L-alpha-phosphatidylinositol
PS: 1-Palmitoyl-2-Oleoyl-sn-Glycero-3-[Phospho-L-Serine]
PI4K2B: 1.0 µg / ml

For further information on ADP-Glo™ kinase activity detection please visit Promega.com

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GST-PI4K2B 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	PMGHHHHHHG	RDSLEVLFGQ	240
241	PLAMEDPSEP	DRLASADGGS	PEEEEDGERE	PLLPRIAWAH	PRRGAPGSAV	RLLDAAGEEG	300
301	EAGDEELPLP	PGDVGVSRSS	PAELDRSRPA	VSVTIGTSEM	NAFLDDPEFA	DIMLRAEQAI	360
361	EVGIFPERIS	QGSSGSYFVK	DPKRKIIGVF	KPKSEEPYGQ	LNPKWTKYVH	KVCCPCCFGR	420
421	GCLIPNQGYL	SEAGAYLVDN	KLHLSIVPKT	KVVWLVSETF	NYNAIDRAKS	RGKKYALEKV	480
481	PKVGRKFHRI	GLPPKIGSFQ	LFVEGYKEAE	YWLRFKFEADP	LPENIRKQFQ	SQFERLVILD	540
541	YIIRNTDRGN	DNWLVRYEKQ	KCEKEIDHKE	SKWIDDEEFL	IKIAAIDNGL	AFPFKHPDEW	600
601	RAYPFHWAWL	PQAKVPFSEE	IRNLILPYIS	DMNFVQDLCE	DLYELFKTDK	GFDKATFESQ	660
661	MSVMRGOILN	LTQALRDGKS	PFQLVQIPCV	IVERSQGSQ	GRIVHLSNSF	TQTVNCRKPF	720
721	FSSW						780

1-218: GST Red: HIS6-tag Green: 3C blue:PI4K2B P: S78P

PI4K2B wt¹ amino acid sequence

1	MEDPSEPDRL	ASADGGSPPEE	EEDGEREPLL	PRIAWAHPRR	GAPGSAVRL	DAAGEEGEAG	60
61	DEELPLPPGD	VGVSRSSSAE	LDRSRPAVSV	TIGTSEMNAF	LDDPEFADIM	LRAEQAIIEVG	120
121	IFPERISQGS	SGSYFVKDPK	RKIIGVFKPK	SEEPYQQLNP	KWTKYVHKVC	CPCCFGRGCL	180
181	IPNQGYLSEA	GAYLVDNKLH	LSIVPKTKVV	WLWSETFNYN	AIDRAKSRGK	KYALEKVPKV	240
241	GRKFHRIGLP	PKIGSFQLFV	EGYKEAEYWL	RKFEADPLPE	NIRKQFQSQF	ERLVILDYII	300
301	RNTDRGNDNW	LVRYEKQKCE	KEIDHKESKW	IDDEEFLIKI	AAIDNGLAFP	FKHPDEWRAY	360
361	PFHWAWLPQA	KVPFSEEIRN	LILPYISDMN	FVQDLCEDLY	ELFKTDKGF	KATFESQMSV	420
421	MRGOILNLTO	ALRDGKSPFQ	LVQIPCVIVE	RSQGSQGR	VHLSNSFTQT	VNCRKPFSS	480
481	W						540

blue: PI4K2B sequence expressed in fusionprotein Red: variant in fusionprotein

¹NCBI/Protein accession number NP_060793.2
S78P: SNP variation see refSNP ID: rs313549