

ProQinase™ PIM2

Serine/threonine-protein kinase Pim-2

Recombinant Human Active Protein Kinase

HGNC Symbol: PIM2

Synonyms: n/a

Product No.: 0223-0000-1

Lot: 002

Description: Human PIM2, full length, amino acids M₁-P₃₁₁ (as in NCBI/Protein entry NP_006866.2), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PIM2 Lot 002, was confirmed as PIM2 by specific Western Blotting using anti PIM2 antibody

Theoretical MW_{Fusion Protein}: 64,096 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 4 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: 0.216 µg/µl

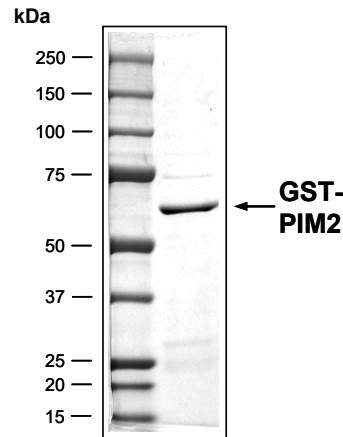
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 35 pmol/µg×min

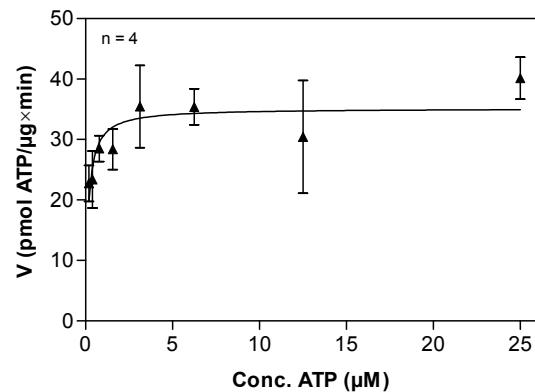
ATP-K_M: 0.15 µM

**PIM2 Lot 002:
Coomassie stain**



2.0 µg GST-PIM2

**PIM2 Lot 002:
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: R₁₁-GSK3(14-27) (R₁₁-SGRARTSSFAEPGGK), 100 ng/ml
 - PIM2: 100 ng/ml
- Filter binding assay
 - MSFC membrane (Millipore)

Additional assay technology: PIM2 Lot 002

was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details



Recombinant Proteins

ProQinase™ PIM2

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PIM2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSRNSPLM	LTKPLQPPA	PPGTPTPPP	GKDREAFEA	YRLGPLLGGK	300
301	GFGTVFAGHR	LTDRLQVAIK	VI PRNRVLGW	SPLSDSVTCP	LEVALLWKVG	AGGGHPGVIR	360
361	LLDWFETQEG	FMLVLERPLP	AQDLFDYITE	KGPLGEGPSR	CFFGQVVAAI	QHCHSRGVVH	420
421	RDIKDENILI	DLRRGCAKLI	DFGSGALLHD	EPYTDFDGTR	VYSPPEWISR	HQYHALPATV	480
481	WSLGILLYDM	VCRDIPFERD	QEILEAELHF	PAHVSPDCCA	LIRRCLAPKP	SSRPSLEEIL	540
541	LDPWMQTPAE	DVPLNPSKGG	PAPLAWSLLP				600

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: PIM2

PIM2 wt ¹ Amino Acid Sequence							
1	MLTKPLQPP	APPGTPTPPP	GGKDREAFEA	EYRLGPLLGG	GFGTVFAGH	RLTDRLOVAI	60
61	KVIPRNRVLG	WSPLSDSVTC	PLEVALLWKV	GAGGGHPGVI	RLLDWFETQE	GFMLVLERPL	120
121	PAQDLFDYIT	EKGPLGEGPS	RCFFGQVVA	IQHCHSRGVV	HRDIKDENIL	IDLRRGCAKL	180
181	IDFGSGALLH	DEPYTDFDGT	RVYSPPEWIS	RHQYHALPAT	VWSLGILLYD	MVCGDIPFER	240
241	DQEILEAELH	FPAHVSPDCC	ALIRRCLAPK	PSSRPSLEEI	LLDPWMQTPA	EDVPLNPSKG	300
301	GPAPLAWSLL	P					360

blue: PIM2 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_006866.2

Recombinant Proteins