

## PKMYT1

protein kinase, membrane associated tyrosine/threonine 1

Recombinant Human Active Protein Kinase

HGNC Symbol: PKMYT1

Synonyms: MYT1, DKFZp547K1610, FLJ20093

Product No.: 1521-0000-1

Lot: 005

**Description:** Human PKMYT1, full length, amino acids M<sub>1</sub>-T<sub>499</sub> (as in [NCBI/Protein](#) entry NP\_004194.3), N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** PKMYT1 Lot 005, was confirmed as PKMYT1 by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW**<sub>Fusion Protein</sub>: 83,424 Da

**Expression host:** Sf9 insect cells

**Purification:** Immobilized Metal 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, 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:** 0.182 µg/µl  
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

### Biochemical Parameters:

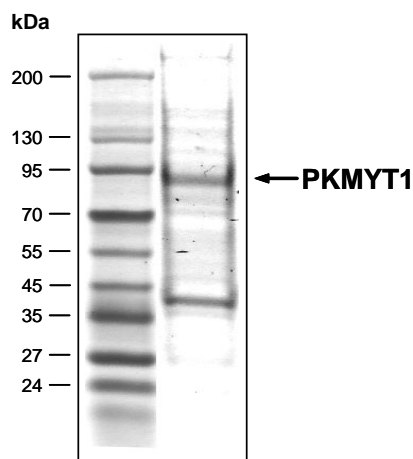
Specific kinase activity (P<sub>i</sub> transfer): 3.8 pmol/µg × min  
ATP-K<sub>M</sub>: 4.6 µM

### Additional assay technology:

PKMYT1 Lot 005 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

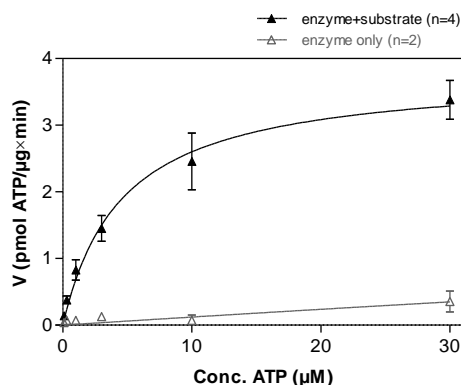
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### PKMYT1 Lot 005: Coomassie stain



2.0 µg PKMYT1

### PKMYT1 Lot 005: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



### Determination of K<sub>M</sub> value & Specific activity:

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg / ml PEG<sub>20,000</sub>
  - ATP (variable)
  - Substrate: GSK3-derived peptide, 40 µg/ml
  - PKMYT1: 2 µg/ml
- Filter binding assay
- MSPH membrane (Millipore)

# PKMYT1

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GST-PKMYT1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PLAMGARGRM	LERPPALAMP	MPTEGTPPPL	SGTPIVPVPA	FRHAEPGFSL	KRPRGLSRSL	300
301	PPPPPAGKSI	PISRLFPPRT	PGWHQLQPRR	VSFGEASET	LQSPGYDPSR	PESFFQOSFQ	360
361	RLSRLGHGSY	GEVFKVRSKE	DGRLYAVKRS	MSPFRGPKDR	ARKLAEVGSH	EKVGQHPCCV	420
421	RLEQAWEEGG	IILYLQTELCG	PSLQQHCEAW	GASLPEAQVW	GYLRDTRLAL	AHLHSQGLVH	480
481	LDVKPANIFL	GPRGRCKLGD	FGLLVELGTA	GAGEVQEGDP	RYMAPELLQG	SYGTAADVFS	540
541	LGLTILEVAC	NMELPHGEGE	WQQLRQGYLP	PEFTAGLSSE	LRSVLVMMLE	PDPKLRATAE	600
601	ALLALPVLRL	PRAWGVLCWM	AAEALSRGWA	LWQALLALLC	WLWHGLAHPA	SWLQPLGPPA	660
661	TPPGSPPCSL	LLDSSLSSNW	DDDSLGPSSL	PEAVLARTVG	STSTPRSRCT	PRDALDLSDI	720
721	NSEPPRGSEF	SFEPRNLLSL	FEDTLDPT				780

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: PKMYT1

PKMYT1 wt <sup>1</sup> Amino Acid Sequence							
1	MLERPPALAM	PMPTEGTPPP	LSGTPIVPVA	YFRHAEPGFS	LKRPRGLSRS	LPPPPPAGKS	60
61	IPISRLFPPR	TPGWHQLQPR	RVSFRGEASE	TLQSPGYDPS	RPESFFQOSF	QRLSRLGHGS	120
121	YGEVFKVRSK	EDGRLYAVKR	SMSPPFRGPKD	RARKLAEVGS	HEKVGQHPCC	VRLEQAWEEG	180
181	GILYLQTELC	GPSLQQHCEA	WGASLPEAQV	WGYLRTLLA	LAHLHSQGLV	HLDVKPANIF	240
241	LGPRGRCKLG	DFGLLVELGT	AGAGEVQEGD	PRYMAPELLQ	GSYGTAADVF	SLGLTILEVA	300
301	CNMLPHGGE	GWQQLRQGYL	PPEFTAGLSS	ELRSVLVMM	EPDPKLRATA	EALLALPVL	360
361	QPRAWGVLC	MAAEALSRGW	ALWQALLALL	CWLWHGLAHP	ASWLQPLGPP	ATPPGSPPCS	420
421	LLDSSLSSN	WDDDSLGPSS	SPEAVLARTV	GSTSTPRSRC	TPRDALDLS	INSEPPRGSE	480
481	PSFEPRNLLS	LFEDTLDPT					540

blue: PKMYT1 sequence expressed in recombinant protein

<sup>1</sup>NCBI/Protein accession number NP\_004194.3