

ProQinase™ AuroraB

aurora kinase B

Recombinant Human Active Protein Kinase

HGNC Symbol: AURKB

Synonyms: Aik2, AIK2, AIM1, AIM-1, ARK2, ARK-2, AurB, aurkb-sv1, aurkb-sv2, STK-1, STK12, STK5

Product No.: 0190-0000-1

Lot: 015

Description: Human AuroraB, full length, amino acids A₂-A₃₄₄ (as in [NCBI/Protein](#) entry NP_004208.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: AuroraB Lot 015, has been verified by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 70073 Da

Expression host: Sf9 insect 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, 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: 0.233 µg/µl

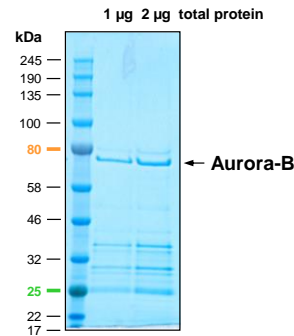
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

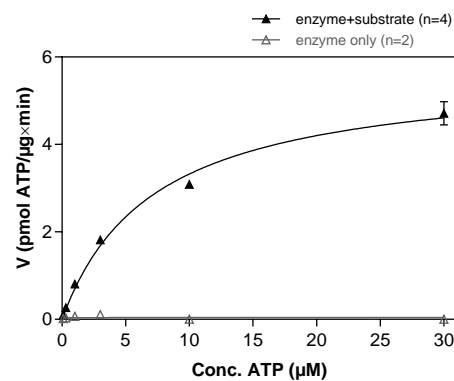
Specific kinase activity (P_i transfer): 5.7 pmol/µg*min

ATP-K_M: 7.2 µM

AuroraB Lot 015: Coomassie stain



AuroraB Lot 015: Determination of V_{max} and K_M value for ATP



- 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(LRRLSLG) 40 µg/ml
 - Kinase: 4 µg/ml
- Filter binding assay
MSIP membrane (Millipore)

Recombinant Proteins

Sequence information

GST-AuroraB 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	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARGIQAS	MGARGRLQGT	AQKENSYPWP	YGRQTAPSGL	STLPQRVLRK	300
301	EPVTPSALVL	MSRSNVQPTA	APGQKVMENS	SGTPDILTRH	FTIDDFEIGR	PLGKGKFGNV	360
361	YLAREKKSHF	IVALKVLFKS	QIEKEGVEHQ	LRREIEIQAH	LHHPNILRLY	NYFYDRRRIY	420
421	LILEYAPRGE	LYKELQKSC T	FDEQRTATIM	EELADALMYC	HGKKVIHRDI	KPENLLLGLK	480
481	GELKIADFGW	SVHAPSLRRK	TMCGTLDYLP	PEMIEGRMHN	EKVDLWCIGV	LCYELLVGNP	540
541	PFESASHNET	YRRIVKVDL K	FPASVPTGAQ	DLISKLLRHN	P SERLPLAQV	SAHPWVRANS	600
601	RRVLPPSALQ	SVA					660

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

AuroraB wt ¹ Amino Acid Sequence							
1	MAQKENSYPW	PYGRQTAPSG	LSTLPQRVLR	KEPVTPSALV	LMSRSNVQPT	AAPGQKVMEN	60
61	SSGTPDILTR	HFTIDDFEIG	RPLGKGKFGN	VYLAREKKSH	FIVALKVLFK	SQIEKEGVEH	120
121	QLRREIEIQA	HLHHPNILRL	YNYFYDRRRI	YLILEYAPRG	ELYKELQKSC	TFDEQRTATI	180
181	MEELADALMY	CHGKKVIHRD	IKPENLLLGL	KGELKIADFG	WSVHAPSLRR	KTMCGTLDYL	240
241	PPEMIEGRMH	NEKVDLWCIG	VLCYELLVGN	PPFESASHNE	TYRRIVKVDL	KFPASVPTGA	300
301	QDLISKLLRH	N SERLPLAQ	VSAHPWVRAN	SRRVLPPSAL	QVA		360

blue: AuroraB sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_004208.1