

ProQinase™ Aurora B

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: 008

Description: Human Aurora-B, 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: Aurora B Lot 008, was confirmed as Aurora B by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 70,073 Da 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, 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: 0.196 µg/µl

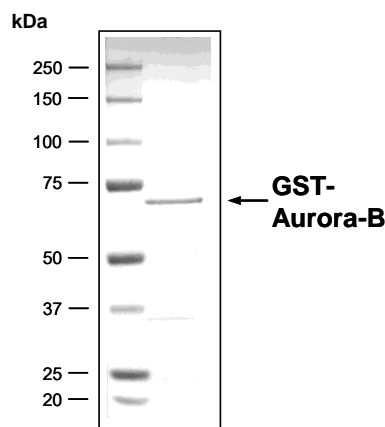
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 37 pmol/µg × min

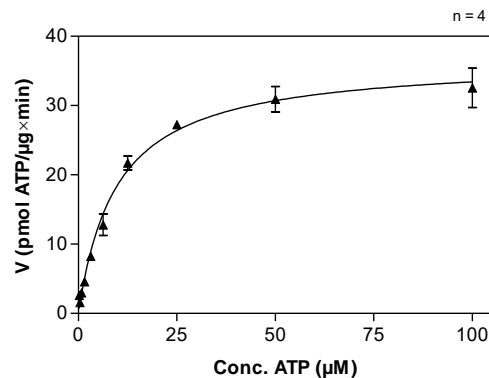
ATP-K_M: 9.7 µM

Aurora B Lot 008: Coomassie stain



2.0 µg GST-Aurora-B Lot 008

Aurora B Lot 008: 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: tetra(LRRLSLG) 100 µg/ml
 - Kinase: 4 µg/ml
- Filter binding assay
- MSPH membrane (Millipore)

Additional assay technology:

Aurora B Lot 008 was also successfully tested by Reaction Biology 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

ProQinase™ Aurora B

Product No.: 0190-0000-1

GST-Aurora B 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	KRIEAIPOID	KYLKSSKYIA	WPLQGQWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARGIQAS	MGARGRLQGT	AQKENSYPWP	YGRQTAPSG	STLPQRVLRK	300
301	EPVTPSALVL	MSRSNVQPTA	APGQKVMENS	SGTPDILTRH	FTIDDFEIGR	PLGKGKFGNV	360
361	YLAREKESHF	IVALKVLFKS	QIEKEGVEHQ	LRREIEIQAH	LHHPNILRLY	NYFYDRRRIY	420
421	LILEYAPRGE	LYKELQKSC	FDEQRTATIM	EELADALMYC	HGKKVIHRDI	KPENLLLGLK	480
481	GELKIADFGW	SVHAPSLRRK	TMCGTLDYLP	PEMIEGRMHN	EKVDLWCIGV	LCYELLVGNP	540
541	PFESASHNET	YRRIVKVDLK	FPASVPTGAQ	DLISKLLRHN	PSERLPLAQV	SAHPWVRANS	600
601	RRVLPPSALQ	SVA					660

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

Aurora B 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	PEMIEGRMH	NEKVDLWCIG	VLCYELLVGN	PPFESASHNE	TYRRIVKVDL	KFPASVPTGA	300
301	QDLISKLLRH	NPSERLPLAQ	VSAHPWVRAN	SRRVLPPSAL	QVA		360

blue: Aurora-B sequence expressed in recombinant protein

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