

AKT3 aa1-479

AKT serine/threonine kinase 3

Recombinant Human Active Protein Kinase

HGNC Symbol: AKT3

Synonyms: PKBG, PKB gamma, PRKBG, RAC-gamma, RAC-PK-gamma, STK-2, DKFZp434N0250

Product No.: 1578-0000-1

Lot: 003

Description: Human Kinase, full length, amino acids M₁-E₄₇₉ (as in [NCBI/Protein](#) entry NP_005456.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: AKT3 aa1-479 Lot 003, was confirmed as AKT3 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 83,838 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: With PDK1

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: 0.491 µg/µl

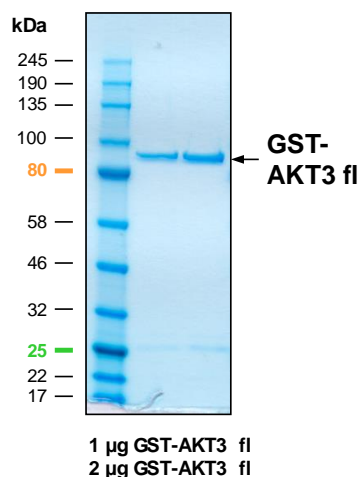
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

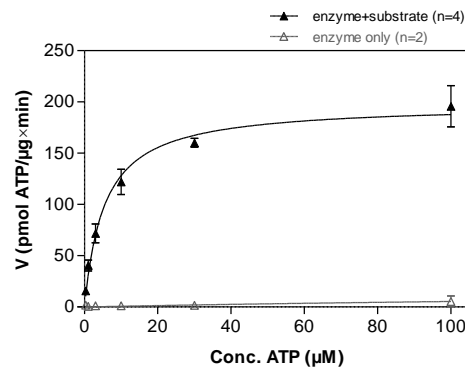
Specific kinase activity (P_i transfer): 198 pmol/µg × min

ATP-K_M: 5.5 µM

AKT3 aa1-479 Lot 003: Coomassie stain



AKT3 aa1-479 Lot 003: 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: GSK3-derived peptide 100 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
- MSPH membrane (Millipore)

Additional assay technology:

AKT3 aa1-479 Lot 003 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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GST-AKT1 aa1-479 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PMSDVTIVKE	GWVQKRGEYI	KNWRPRYFLL	KTGDSFIGYK	EKPQDVDLPY	PLNNSVAKC	300
301	QLMKTERPKP	NTFIIRCLQW	TTVIERTFHV	DTPEEREWT	EAIQAVADRL	QRQEEERMNC	360
361	SPTSQIDNIG	EEEMDASTTH	HKRKTMNDFD	YLKLLGKGTG	GKVLVREKA	SGKYAMKIL	420
421	KKEVIIAKDE	VAHTLTESRV	LKNTRHPFLT	SLKYSFQTKD	RLCFVMEYVN	GGELFFHSSR	480
481	ERVFSEDRTR	FYGAEIVSAL	DYLHSGKIVY	RDLKLENLML	DKDGHKITD	FGLCKEGITD	540
541	AATMKTFCGT	PEYLAPEVLE	DNDYGRAVDW	WGLGVVMYEM	MCGRLPFYNO	DHEKLFELIL	600
601	MEDIKFPRTL	SSDAKSLLSG	LLIKDPNKRL	GGPDDAKEI	MRHSFFSGVN	WQDVYDKKLV	660
661	PPFKPQVTSE	TDTRYFDEEF	TAQTITITPP	EKYDEDGMD	MDNERRPHFP	QFSYSASGRE	720

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: AKT3

AKT3 wt ¹ Amino Acid Sequence							
1	MSDVTIVKEG	WVQKRGEYIK	NWRPRYFLLK	TDGDSFIGYKE	KPQDVDLPYP	LNNFSVAKCQ	60
61	LMKTERPKPN	TFIIRCLQWT	TVIERTFHVD	TPEEREWTE	AIQAVADRLQ	RQEEERMNCS	120
121	PTSQIDNIGE	EEMDASTTHH	KRKTMNDFDY	LKLLGKGTFG	KVILVREKAS	GKYAMKILK	180
181	KEVIIAKDEV	AHTLTESRVL	KNTRHPFLTS	LKYSFQTKDR	LCFVMEYVNG	GELFFHLSRE	240
241	RVFSEDRTRF	YGAEIVSALD	YLHSGKIVYR	DLKLENLMLD	KDGHKITDF	GLCKEGITDA	300
301	ATMKTFCGTP	EYLAPEVLED	NDYGRAVDWW	GLGVVMYEMM	CGRLPFYNOQ	HEKLFELIIM	360
361	EDIKFPRTLS	SDAKSLLSGL	LIKDPNKRLG	GGPDDAKEIM	RHSFFSGVNW	QDVYDKKLV	420
421	PPFKPQVTSET	DTRYFDEEFT	AQTITITPPE	KYDEDGMDCM	DNERRPHFPQ	FSYSASGRE	480

blue: AKT3 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/1005456.1) accession number NP_005456.1