

BRSK2

BR serine/threonine kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: BRSK2

Synonyms: C11orf7, FLJ41362, HUSSY-12, PEN11B, SAD1, STK29

Product No.: 1524-0000-1

Lot: 005

Description: Human BRSK2, full-length, amino acids M₁-L₆₇₄ (as in [NCBI/Protein](#) entry NP_001243558.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: BRSK2 Lot 005, was confirmed as BRSK2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 103,239 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: 0.494 µg/µl

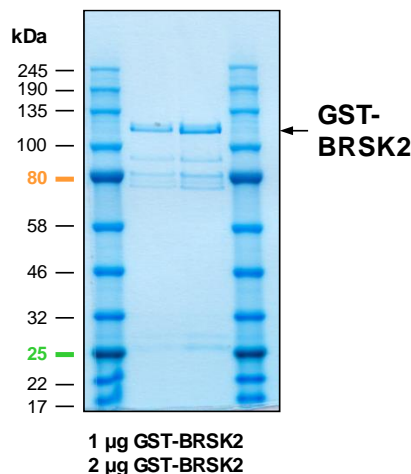
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

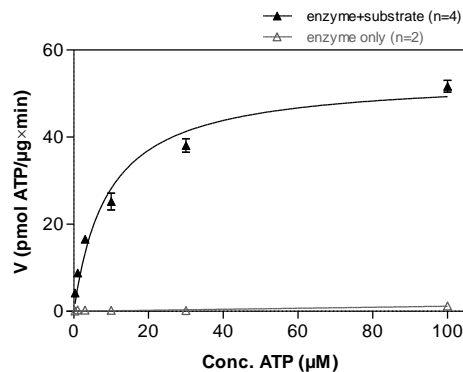
Specific kinase activity (P_i transfer): 54 pmol/µg × min

ATP-K_M: 9.1 µM

BRSK2 Lot 005: Coomassie stain



BRSK2 Lot 005: 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: CHKtide (KKKVSRSGLYRSPPSPENLNRP) 80 µg/ml
Kinase: 2 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

Additional assay technology:

BRSK2 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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GST-BRSK2 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	RDSLEVLFCG	240
241	PMTSTGKGGG	AQHAQYVGPY	RLEKTLGKGQ	TGLVKLGVHC	VTCQKVAIKI	VNREKLSSEV	300
301	LMKVEREIAI	LKLIHHPHVL	KLHDVYENKK	YLYLVLEHVS	GGELFDYLVK	KGRLTPKEAR	360
361	KFFRQIISAL	DFCHSHSICH	RDLKPENLLL	DEKNNIRIAD	FGMASLQVGD	SLLETSCGSP	420
421	HYACPEVIRG	EKYDGRKADV	WSCGVILFAL	LVGALPFDDD	NLRQLEKVK	RGVFMHPHFI	480
481	PPDCQSLLRG	MIEVDAARRL	TLEHIQKHIW	YIGGKNEPEP	EQPIPRKVQI	RSLPSLEDID	540
541	PDVLDMSHSL	GCFRDRNKLL	QDLLSEEENQ	EKMIYFLLLD	RKERYPSQED	EDLPPRNEID	600
601	PPRKRVDSPM	LNRHGKRRPE	RKSMEVLSVT	DGGSPVPARR	AIEMAQHGQR	SRSISGASSG	660
661	LSTSPSSPRV	TPHPSPRGS	PLTPKGTPTV	HTPKESPAGT	PNPTPPSSPV	GGVPWRARL	720
721	NSIKNSFLGS	PRFHRRKLQV	PTPEEMSNLT	PSSPELAKK	SWFGNFISLE	KEEQIFVVIK	780
781	DKPLSSIKAD	IVHAFLSIPS	LSHVISQTS	FRAEYKATGG	PAVFQKPVKF	QVDITYTEGG	840
841	EAQKENGIYS	VTFTLLSGPS	RRFKRVVETI	QAQLLSTHDP	PAAQHLSEPP	PPAPGLSWGAG	900
901	GLKGQKVATS	YESSL					960

1-218: GST **Red:** HIS6-tag **Green:** 3C cleavage site **blue:** BRSK2

BRSK2 wt ¹ Amino Acid Sequence							
1	MTSTGKDGGA	QHAQYVGPYR	LEKTLGKGQT	GLVKLGVHCV	TCQKVAIKIV	NREKLSSEVL	60
61	MKVEREIAIL	KLIEHPHVLK	LHDVYENKKY	LYLVLEHVSG	GELFDYLVKK	GRLTPKEARK	120
121	FFRQIISALD	FCHSHSICHR	DLKPENLLLD	EKNNIRIADF	GMASLQVGDS	LLETSCGSPH	180
181	YACPEVIRGE	KYDGRKADVW	SCGVILFALL	VGALPFDDDN	LRQLEKVKR	GVFMHPHFIP	240
241	PDCQSLLRGM	IEVDAARRLT	LEHIQKHIWY	IGGKNEPEPE	QPIPRKVQIR	SLPSLEDIDP	300
301	DVLDMSHSLG	CFRDRNKLLQ	DLLSEEENQE	KMIYFLLLDL	KERYPSQED	DLPPRNEIDP	360
361	PRKRVDSPML	NRHGKRRPER	KSMEVLSVTD	GGSPVPARRA	IEMAQHGQRS	RSISGASSGL	420
421	STSPSSPRV	TPHPSPRGS	LPTPKGTPVH	TPKESPAGTP	NPTPPSSPSV	GGVPWRARLN	480
481	SIKNSFLGSP	RFHRRKLQVP	TPEEMSNLTP	ESSPELAKKS	WFGNFISLEK	EEQIFVVIKD	540
541	KPLSSIKADI	VHAFLSIPSL	SHSVISQTSF	RAEYKATGGP	AVFQKPVKFQ	VDITYTEGGE	600
601	AQKENGIYSV	TFTLLSGPSR	RFKRVVETIQ	AQLLSTHDP	AAQHLSEPPP	PAPGLSWGAG	660
661	LKGQKVATSY	ESSL					720

blue: BRSK2 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein) accession number NP_001243558