

ProQinase™ RIPK2

receptor interacting serine/threonine kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: RIPK2

Synonyms: CARD3; CARDIAK; CCK; GIG30; RICK; RIP-2; RIP2

Product No.: 0676-0000-1

Lot: 009

Description: Human RIPK2, N-terminal fragment, amino acids M₁-E₂₉₉ (as in [NCBI/Protein](#) entry NP_003812.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: RIPK2, Lot 009, was confirmed as RIPK2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 63,815 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

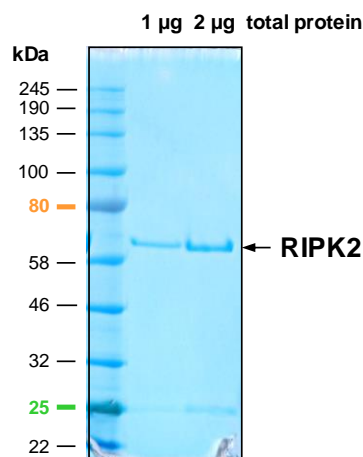
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.135 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

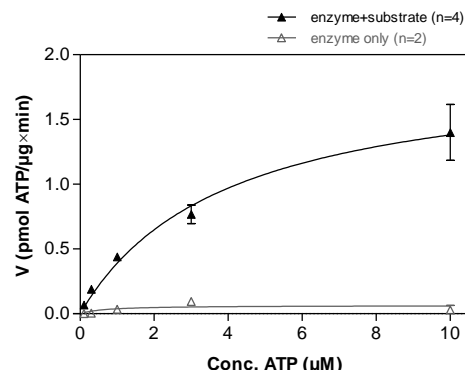
Biochemical Parameters:

Specific kinase activity (P_i transfer): 1.9 pmol/µg × min
ATP-K_M: 3.9 µM

RIPK2 Lot 009: Coomassie stain



RIPK2 Lot 009: 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: RBER-CHKtide 40 µg/ml
Kinase: 4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-RIPK2 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	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARGMNGE	AICSA LPTIP	YHKLADLRYL	SRGASGTVSS	ARHADWRVQV	300
301	AVKHLHIHTP	LLDSERKDV L	REAEILHKAR	FSYILPILGI	CNEPEFLGIV	TEYMPNGSLN	360
361	ELLHRKTEYP	DVAWPLRFRI	LHEIALGVNY	LHNMT PPLLH	HDLKTONILL	DNEFHVKIAD	420
421	FGLSKWRMMS	LSQSRSSKSA	PEGGTIIYMP	PENYEPGQKS	RASIKHDIYS	YAVITWEVLS	480
481	RKQPFEDVTN	PLQIMYSVSQ	GHRPVINEES	LPYDIPHRAR	MISLIESGWA	QNPDERPSFL	540
541	KCLIELEPVL	RTFEE					600

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: RIPK2 fragment

RIPK2 wt¹ Amino Acid Sequence

1	MNGEAICSAL	PTIPYHKLAD	LRYLSRGASG	TVSSARHADW	RVQVAVKHLH	IHTPLLDSE R	60
61	KDVLREAEIL	HKARFSYILP	ILGICNEPEF	LGIVTEYMPN	GSLNELLHRK	TEYPDVAWPL	120
121	RFRILHEIAL	GVNYLHNMT P	PLLHHD LKTQ	NILLDNEFHV	KIADFGLSKW	RMMSLSQSRS	180
181	SKSAPEGGTI	IYMPENYEP	GQKSRASIKH	DIYSYAVITW	EVLSRKQPFE	DVTNPLQIMY	240
241	SVSQGHRPVI	NEESLPYDIP	HRARMISLIE	SGWAQNPDER	PSFLKCLIEL	EPVLRTFEEI	300
301	TFLEAVIQLK	KTKLQSVSSA	IHLCDKKKME	LSLNIPVNHG	PQEESCGSSQ	LHENSGSPET	360
361	SRSLPAPQDN	DFLSRKAQDC	YFMKLHHC PG	NHSWDSTISG	SQRAAFCDHK	TTPCSSAIN	420
421	PLSTAGNSER	LQPGIAQQWI	QSKREDIVNQ	MTEACLNQSL	DALLSRDLIM	KEDYELVSTK	480
481	PTRTSKVRQL	LDTTDIQGE E	FAKVIVQK LK	DNKQMG LQPY	PEILVVSRS P	SLNLLQNKSM	540

blue: RIPK2 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_003812.1