

ProQinase™ CIT

citron rho-interacting serine/threonine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: CIT

Synonyms: KIAA0849; STK21; CRIK; CITK

Product No.: 0370-0000-1

Lot: 001

Description: Human CIT, N-terminal fragment, amino acids M₁-K₄₅₀ (as in [NCBI/Protein](#) entry NP_009105.1), tag-free, expressed in Sf9 insect cells

Product identity: CIT Lot 001, has been verified by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 50789 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, 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 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

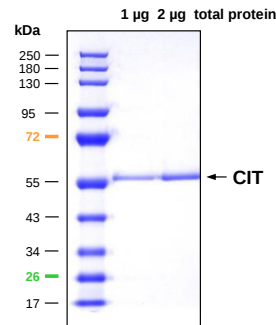
Protein concentration: 0.684 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

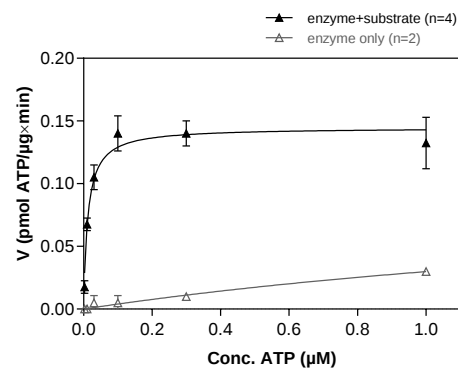
Specific kinase activity (P_i transfer): 0.14 pmol/µg*min

ATP-K_M: 0.01 µM

CIT Lot 001: Coomassie stain



CIT Lot 001: 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: Histone H2B 40 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Sequence information

CIT Recombinant Protein Amino Acid Sequence

1	GP	MLKFKYGA	RNPLDAGAAE	PIASRASRLN	LFFQGKPPFM	TQQQMSPLSR	EGILDALFVL	60
61	FE	ECSQPALM	KIKHVSNFVR	KYSDTIAELQ	ELQPSAKDFE	VRSLVGCCHF	AEVQVVREKA	120
121	TG	DIYAMKVM	KKKALLAQEQ	VSFEEERNI	LSRSTSPWIP	QLQYAFQDKN	HLYLVMYQVP	180
181	GG	DLLSLLNR	YEDQLDENLI	QFYLAELILA	VHSVHLMGYV	HRDIKPENIL	VDRTGHIKLV	240
241	DF	GSAAKMNS	NKMVNAKLPI	GTPDYMAPEV	LTVMNGDGKG	TYGLDCDWW	VGVIAYEMIY	300
301	GR	SPFAEGTS	ARTFNNIMNF	QRFLKFPDDP	KVSSDFLDLI	QSLLCGQKER	LKFEGLCCHP	360
361	FF	SKIDWNNI	RNSPPPFVPT	LKSDDDTSNF	DEPEKNSWVS	SSPCQLSPSG	FSGEELPFVG	420
421	FS	YSKALGIL	GRSESVSGL	DSPAKTSSME	KK			480

1-2: legacy of tag cleavage **blue**: CIT fragmentCIT wt¹ Amino Acid Sequence

1	MLKFKYGARN	PLDAGAAEPI	ASRASRLNLF	FQGKPPFMTQ	QQMSPLSREG	ILDALFVLFE	60
61	ECSQPALMKI	KHVSNFVRKY	SDTIAELQEL	QPSAKDFEVR	SLVGCCHFAE	VQVVREKATG	120
121	DIYAMKVMKK	KALLAQEQVS	FFEEERNILS	RSTSPWIPQL	QYAFQDKNHL	YLVMEYQPGG	180
181	DLLSLLNRYE	DQLDENLIQF	YLAELILAVH	SVHLMGYVHR	DIKPENILVD	RTGHIKLVDF	240
241	GSAAKMNSNK	MVNAKLPIGT	PDYMAPEVLT	VMNGDGKGTY	GLDCDWWSVG	VIAAYEMIYGR	300
301	SPFAEGTSAR	TFNNIMNFQR	FLKFPDDPKV	SSDFLDLIQS	LLCGQKERLK	FEGLCCHPFF	360
361	SKIDWNNIRN	SPPPFVPTLK	SDDDTSNFDE	PEKNSWVSSS	PCQLSPSGFS	GEELPFVGF	420
421	YSKALGILGR	SESVVSGLDS	PAKTSSMEKK	LLIKSKELQD	SQDKCHKMEQ	EMTRLHRRVS	480
481	EVEAVLSQKE	VELKASETQR	SLLEQDLATY	ITECSSLKRS	LEQARMEVSQ	EDDKALQLLH	540
541	DIREQSRKLQ	EIKEQEYQAQ	VEEMRLMMNQ	LEEDLVSARR	RSDLYESEL	ESRLAAEEFK	600
601	RKATECQHKL	LKAKDQGKPE	VGEYAKLEKI	NAEQQLKIQE	LQEKLEKAVK	ASTEATELLQ	660
661	NIRQAKERAE	RELEKLQNR	DSSEGIRKKL	VEAEELKEKH	REAQVSAQHL	EVHLKQKEQH	720
721	YEEKIKVLDN	QIKKDLADKE	TLENMMQRHE	EEAHEKGKIL	SEQKAMINAM	DSKIRSLEQR	780
781	IVELSEANKL	AANSSLTQR	NMKAQEEEMIS	ELRQQKFYLE	TQAGKLEAQN	RKLEEQLLEKI	840
841	SHQDHSDKNR	LLELETRLRE	VSLEHEEQKL	ELKRQLTELQ	LSLQERESQL	TALQAARAL	900
901	ESQLRQAKTE	LEETTAAEAE	EIQALTAHRD	EIQRKFDALR	NSCTVITDLE	EQLNQLTEDN	960
961	AELNNQNFYL	SKQLDEASGA	NDEIVQLRSE	VDHLRREITE	REMQLTSQKQ	TMEALKTTCT	1020
1021	MLEEQVMDLE	ALNDELLEKE	RQWEAWRSVL	GDEKSQFECE	VRELQRMMLD	EKQSRARADQ	1080
1081	RITESRQVVE	LAVKEHKAEI	LALQQALKEQ	KLKAESLSDK	LNDLEKKHAM	LEMNARSLQQ	1140
1141	KLETERELKQ	RLLEEQAQLQ	QQMDLQKNHI	FRLTQGLQEA	LDRADLLKTE	RSDLEYQLEN	1200
1201	IQVLYSHEKV	KMEGTISQQT	KLIDFLQAKM	DQPAKKKKGL	FSRRKEDPAL	PTQVPLQYNE	1260
1261	LKLALKEKEA	RCAELEELAQ	KTRIELRSAR	EEAAHRKATD	HPHPSTPATA	RQQIAMSIV	1320
1321	RSPHQPSAM	SLLAPPSSRR	KESSTPEEFS	RRLKERMHHN	IPHRFNVGLN	MRATKCAVCL	1380
1381	DTVHFRQAS	KCLECQVMCH	PKCSTCLPAT	CGLPAEYATH	FTEAFCRDKM	NSPGLQTKEP	1440
1441	SSSLHLEGWM	KVPRNNKRGQ	QGWDRKYIVL	EGSKVLIYDN	EAREAGQRPV	EEFELCLPDG	1500
1501	DVSIHGAVGA	SELANTAKAD	VPYILKMESH	PHTTCWPGR	LYLLAPSPFD	KQRWVTALES	1560
1561	VVAGGRVSRE	KAEADAKLLG	NSLLKLEGDD	RDMNCTLPF	SDQVVLVGTE	EGLYALNVLK	1620
1621	NSLTHVPGIG	AVFQIYIIKD	LEKLLMIAGE	ERALCLVDVK	KVKQSLAQSH	LPAQPDISP	1680
1681	IFEAVKGCHL	FGAGKIENGL	CICAAMPSKV	VILRYNENLS	KYCIRKEIET	SEPCSCIHFT	1740
1741	NYSILIGTNK	FYEIDMKQYT	LEEFLDKNDH	SLAPAVFAAS	SNSFPVSIVQ	VNSAGQREEY	1800
1801	LLCFHEFGVF	VDSYGRRSRT	DDLKWSRLPL	AFAYREPYLF	VTHFNSLEVI	EIQARSSAGT	1860
1861	PARAYLDIPN	PRYLGPASS	GAIYLAASSYQ	DKLRVICCKG	NLVKESGRTEH	HRGPSTSRSS	1920
1921	PNKRGPPTYN	EHITKRVASS	PAPPEGPSHP	REPSTPHRYR	EGRTELRRDK	SPGRPLEREK	1980
1981	SPGRMLSTRR	ERSPGRLFED	SSRGRLPAGA	VRTPLSQVNK	VWDQSSV		2040

blue: CIT sequence expressed in recombinant protein¹[NCBI/Protein](#) accession number NP_009105.1