

FAK aa2-1052

protein tyrosine kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: PTK2

Synonyms: FADK, FADK1, FAK1, FRNK, pp125FAK

Product No.: 0165-0000-3

Lot: 016

Description: Human FAK, amino acids A₂-H₁₀₅₂ (as in [NCBI/Protein](#) entry NP_722560.1), activated, N-terminal GST fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: FAK Lot 016, was confirmed as FAK by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 145,394 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: With SRC

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: 0.249 µg/µl

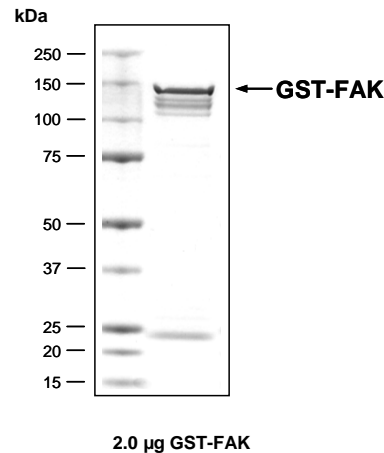
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

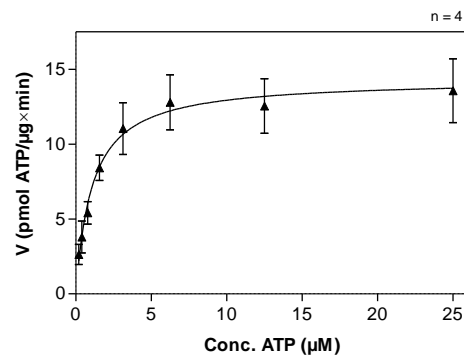
Specific kinase activity (P_i transfer): 14 pmol/µg × min

ATP-K_M: 1.1 µM

FAK Lot 016: Coomassie stain



FAK Lot 016: 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: Poly(Glu/Tyr)_{4:1} 5 µg/ml
Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Additional assay technology:

FAK Lot 016 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-FAK aa2-1052 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	LVPRGSAAAY	LDPNLNHTPN	240
241	SSTKTHLGTG	MERSPGAMER	VLKVFHYFES	NSEPTTWASI	IRHGDATAVDR	GIIQKIVDSH	300
301	KVKHVACYGF	RLSHLRSEEV	HWLHVDMGVS	SVREKYELAH	PPEEWKVELR	IRYLPKGFNL	360
361	QFTEDKPTLN	FFYQQVKS DY	MLEIADQVDQ	EIALKLGCLE	IRRSYWEMRG	NALEKKS NYE	420
421	VLEKDVGLKR	FFPKSLLD SV	KAKTLRKL IQ	QTFRQFANLN	REESILKFFE	ILSPVYRFDK	480
481	ECFKCALGSS	WIISVELAIG	PEEGISY LTD	KGCNPTH LAD	FTQVQTIQYS	NSEDKDRKGM	540
541	LQLKIAGAPE	PLTVTAPSLT	IAENMADLID	GYCRLVNGTS	QSFIIRPQKE	GERALPSIPK	600
601	LANSEKQGM R	THAVSVSETD	DYAEIIDEED	TYTMPSTRDY	EIQRERIELG	RCIGEGQFGD	660
661	VHQIYMSPE	NPALAVA IKT	CKNCTSDSVR	EKFLQEALTM	RQFDHPHIVK	LIGVITENPV	720
721	WIIMELCTLG	ELRSFLQVRK	YSLDLASLIL	YAYQLSTALA	YLESKR FVHR	DIAARNV LVS	780
781	SNDCVKLGDF	GLSRYMEDST	YYKASKGKLP	IKWMAPE SIN	FRRFTSASDV	WMFGVCMWEI	840
841	LMHGVPKPFQ G	VKNNDVIGRI	ENGERLPMPP	NCPPTLYSLM	TKCWAYDPSR	RPRFTELKAO	900
901	LSTILEEEKA	QQEERMRMES	RRQATVSWDS	GGSD EAPPKP	SRPGYPSPRS	SEGFYPS PQH	960
961	MVQTNHYQVS	GYPGSHGITA	MAGSIYPGQA	SLLDQTD SWN	HRPQEIAMWQ	PNVEDSTVLD	1020
1021	LRGIGQVLP T	HLMEERLIRQ	QQEMEEDQRW	LEKEERFLKP	DVRLSRG SID	REDGSLQGP I	1080
1081	GNQHIYQPVG	KPDPAAPPK K	PPRPGAPGHL	GSLASLSSPA	DSYNEGVKLQ	PQEI SPPPTA	1140
1141	NLDRSNDK VY	ENVTGLVKAV	IEMSSKIQPA	PPEEYVPMVK	EVGLALR TLL	ATVDETI PLL	1200
1201	PASTHREIEM	AQKLLNSDLG	ELINKMKLAQ	QYVMTSLQQE	YKQMLTAAH	ALAVDAKNLL	1260
1261	DVIDQARLKM	LGQTRPH					1320

1-218: GST **Pink**: Thrombin cleavage site **blue**: FAK

FAK wt ¹ Amino Acid Sequence							
1	MAAAYLDPNL	NHTPNSSTKT	HLGTGMERSP	GAMERVLKVF	HYFESNSEPT	TWASIIRHGD	60
61	ATDVRGIIQK	IVDSHKVKHV	ACYGFRLSHL	RSEEVHWLHV	DMGVSSVREK	YELAHPPPEEW	120
121	KYELRIRYLP	KGFLNQFTED	KPTLNFFYQQ	VKSDYMLEIA	DQVDQEIALK	LGCLEIRRSY	180
181	WEMRGNALEK	KSNYEVLEKD	VGLKRFFPKS	LLDSVKAKTL	RKLIQQTFRQ	FANLNREESI	240
241	LKFFEILSPV	YRFDKECFKC	ALGSSWII SV	ELAIGPEEGI	SYLTDKGCNP	THLADFTQVQ	300
301	TIQYSNSEDK	DRKGM LQLKI	AGAPEPLTVT	APSLTIAENM	ADLIDGYCRL	VNGTSQS FII	360
361	RPQKEGERAL	PSIPKLANSE	KQGM RTHAVS	VSETDDYAEI	IDEEDTYTMP	STRDYEIQRE	420
421	RIELGRCIGE	GQFGDVHQGI	YMSPENPALA	VAIKTKNCT	SDSVREKFLQ	EALTM RQFDH	480
481	PHIVKLIGVI	TENPVWII ME	LCTLGELRSF	LQVRKYSLDL	ASLILYAYQL	STALAYLESK	540
541	RFVHRDIAAR	NVLVSSNDCV	KLGD FGLSRY	MEDSTYYKAS	KGKLP IKWMA	PESINFRRET	600
601	SASDVW MFGV	CMWEILMHGV	KPFQGVKNND	VIGRIENGER	LPMPNCPPT	LYSLM TKCWA	660
661	YDPSRRPRFT	ELKAQLSTIL	EEEAQQEER	MRMESRRQAT	VSWDSGG SDE	APPKPSRPGY	720
721	PSPRSSEG FY	PSPQH MVQTN	HYQVSGYPGS	HGITAMAGSI	YPGQASLLDQ	TDSWNHRPQE	780
781	IAMWQPNVED	STVLDLRGIG	QVLP THLMEE	RLIRQQEME	EDQRWLEKEE	RFLKPDVRLS	840
841	RGSIDREDGS	LQGPIGNQHI	YQPVGKPDPA	APPKPPRPG	APGHLGSLAS	LSSPADSYNE	900
901	GVKLQPQEIS	PPPTANLDRS	NDKVYENV TG	LVKAVIEMSS	KIQPAPPEEY	VPMVKEVGLA	960
961	LRTLLATVDE	TIPLLPASTH	REIEMAQKLL	NSDLGELINK	MKLAQQYVMT	SLQQEYKQOM	1020
1021	LTAHAHALAVD	AKNLLDVIDQ	ARLKM LQGTR	PH			1080

blue: FAK sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/np_722560.1) accession number NP_722560.1

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