

FGR

Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog

Recombinant Human Active Protein Kinase

HGNC Symbol: FGR

Synonyms: SRC2; c-fgr; p55c-fgr

Product No.: 0234-0000-1

Lot: 000

Description: Human FGR, full length, amino acids M₁-T₅₂₉ (as in NCBI/Protein entry NP_005239.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: FGR, Lot 002, was confirmed as FGR by specific Western Blotting using anti FGR antibody

Theoretical MW_{Fusion Protein}: 93,934 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM TRIS-HCl pH 8.0, 100 mM NaCl, 5 mM DTT, 4 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: 0.055 µg/µl

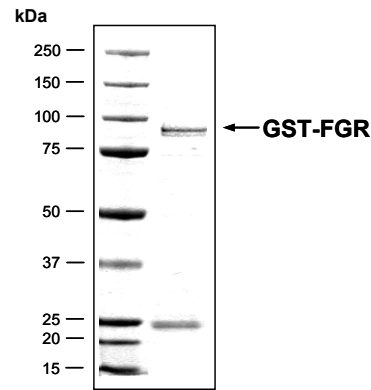
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 16 pmol/µg × min

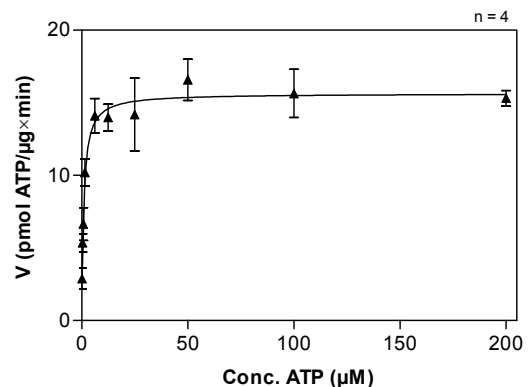
ATP-K_M: 0.9 µM

FGR Lot 002:
Coomassie stain



2.0 µg GST-FGR

FGR Lot 002:
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: Poly(Glu/Tyr)_{4:1} 20.0 µg/ml
 - Kinase: 4.0 µg/ml
- Filter binding assay
 - MSFC membrane (Millipore)

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FGR Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMG HHHHHH HG	RRRASVAAGI	240
241	LVPRGS PGLD	GICSRNSPLP	GMGCVFCKKL	EPVATAKEDA	GLEGDFRSYG	AADHYGPDPT	300
301	KARPASSFAH	IPNYSNFSSQ	AINPGFLDSG	TIRGVSGIGV	TLFIALDYDE	ARTEDDLTFT	360
361	KGEKFHILNN	TEGDWEARS	LSSGKTGCIP	SNYVAPVDSI	QAEWYFGKI	GRKDAERQLL	420
421	SPGNPQGAFL	IRESETTKGA	YLSIRDWDQ	TRGDHVKHYK	IRKLDMGYY	ITTRVQFNSV	480
481	QELVQHMEV	NDGLCNLLIA	PCTIMKPQTL	GLAKDAWEIS	RSSITLERRL	GTGCFGDVWL	540
541	GTWNGSTKVA	VKTLKPGTMS	PKAFLEEAQV	MKLLRHDKLV	QLYAVVSEEP	IYIVTEFMCH	600
600	GSLDLFLKNP	EGQDLRLPQL	VDMAAQVAEG	MAYMERMNYI	HRDLRAANIL	VGERLACKIA	660
661	DFGLARLIKD	DEYNPCQGSK	FPIKWTAPEA	ALFGRFTIKS	DVWSFGILLT	ELITKGRIPIY	720
721	PGMNKREVL	QVEQGYHMPC	PPGCPALYE	AMEQTRWLDP	EERPTFEYLQ	SFLEDYFTSA	800
781	EPQYQPGDQT	EGRIQASMGA	RGRLQGT PGR	SVPTLLKRRK	FSLKFPWCSK		880

1-218: GST **Red:** HIS6-tag **Pink:** Thrombin cleavage site **blue:** FGRT **boxed:** variation from RefSeq

FGR wt ¹ Amino Acid Sequence							
1	MGCVFCKKLE	PVATAKEDAG	LEGDFRSYGA	ADHYGPDPTK	ARPASSFAHI	PNYSNFSSQA	60
61	INPGFLDSGT	IRGVSGIGVT	LFIALDYDEA	RTEDDLTFTK	GEKFHILNNT	EGDWEARSL	120
121	SSGKTGCIPS	NYVAPVDSIQ	AEEWYFGKIG	RKDAERQLLS	PGNPQGAFLI	RESETTKGAY	180
181	SLSIRDWDQT	RGDHVKHYKI	RKLDMGYYI	TTRVQFNSVQ	ELVQHMEVNV	DGLCNLLIAP	240
241	CTIMKPQTLG	LAKDAWEISR	SSITLERRLG	TGCFGDVWL	TWNGSTKVAV	KTLKPGTMS	300
301	KAFLEEAQVM	KLLRHDKLVQ	LYAVVSEEP	IYIVTEFMCHG	SLLDFLKNPE	GQDLRLPQLV	360
361	DMAAQVAEGM	AYMERMNYIH	RDLRAANILV	GERLACKIAD	FGLARLIKDD	EYNPCQGSKF	420
421	PIKWTAPEAA	LFGRFTIKSD	VWSFGILLTE	LITKGRIPIP	GMNKREVLEQ	VEQGYHMPCP	480
481	PGCPASLYEA	MEQTRWLDPE	ERPTFEYLQS	FLEDYFTSAE	PQYQPGDQT		540

blue: Kinase sequence expressed in fusion protein **Red:** variant in fusion protein

¹NCBI/Protein accession number NP_005239.1