

ProQinase™ FGF-R1 wt

fibroblast growth factor receptor 1

Recombinant Human Active Protein Kinase

HGNC Symbol: FGFR1

Synonyms: BFGFR, N-SAM, CEK, FLT2, FLG, CD133, H2, H3, H4, H5

Product No.: 0101-0000-1

Lot: 011

Description: Human FGF-R1, C-terminal fragment, amino acids G₄₀₀-R₈₂₀ (as in [NCBI/Protein](#) entry NP_056934.2), N-terminally fused to GST-HIS₆-Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: FGF-R1 wt, Lot 011, was confirmed as human FGF-R1 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 78,097 Da

Expression host: Sf9 insect 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: 0.107 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

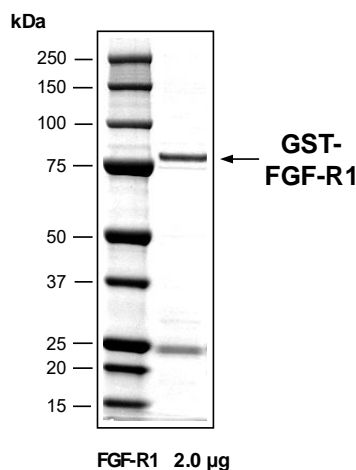
Biochemical Parameters:

Specific kinase activity (P_i transfer): 92 pmol/µg × min
ATP-K_M: 8.9 µM

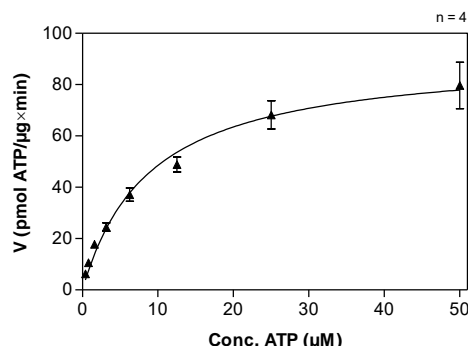
Additional assay technology:

FGF-R1 wt Lot 011 was also successfully tested by Reaction Biology 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

FGF-R1 wt Lot 011: Coomassie stain



FGF-R1 wt Lot 011: 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 10 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

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GST-FGF-R1 wt 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	WPLQG WQATF	GGGDHPPKSD	PMG HHHHHG	RRRASVAAGI	240
241	LVPRG SPGLD	GIYARGIQAS	MGARGRLQGT	KKSDFHSQMA	VHKLAKSIPL	RRQVTVSADS	300
301	SASMNSGVLL	VRPSRLSSSG	TPMLAGVSEY	ELPEDLRWEL	PRDRLVLGKP	LGEGCFGQVV	360
361	LAEAIGLDK	KPNRVTKVAV	KMLKSDATEK	DLSDLISEME	MMKMIGKHK	IINLLGACTQ	420
421	DGPLYVIVEY	ASKGNLREYL	QARRPPGLE	CYNPSHNPEE	QLSSKDLVSC	AYQVARGMEY	480
481	LASKKCIHRD	LAARNVLVTE	DNMKIADFG	LARDIHHIDY	YKKTNGRLP	VKWMapeALF	540
541	DRIYTHQSDV	WSFGVLLWEI	FTLGGSPYPG	VPVEELFKLL	KEGHRMDKPS	NCTNELYMM	600
600	RDCWHAVPSQ	RPTFKQLVED	LDRIVALTSN	QEYLDLSMPL	DQYSPSPFDT	RSSTCSSGED	660
661	SVFSHEPLPE	EPCLPRHPAQ	LANGGLKRR				720

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: FGF-R1 fragment **boxed**: variation from RefSeq

FGF-R1 wt ¹ Amino Acid Sequence							
1	MWSWKCLLFW	AVLVTATLCT	ARPSPTLPEQ	AQPWGAPVEV	ESFLVHPGDL	LQLRCRLRDD	60
61	VQSINWLRDG	VQLAESNRTR	ITGEEVEVQD	SVPADSGLYA	CVTSSPSGSD	TTYFSVNVSD	120
121	ALPSS EDDDD	DDDSSSEEKE	TDNTPKNPVA	PYWTSPEKME	KKLHAVPAK	TVKFKCPSSG	180
181	TPNPTLRWLK	NGKEFKPDHR	IGGYKVRyat	WSIIMDSVVP	SDKGNyTCIV	ENEYGSINHT	240
241	YQLDVVERS P	HRPILQAGLP	ANKTVALGSN	VEFMCKVYSD	PQPHIQWLKH	IEVNGSKIGP	300
301	DNL PYVQILK	TAGVNTT DKE	MEVLHLRNVS	FEDAGEYTCL	AGNSIGLSHH	SAWLTVLEAL	360
361	EERPAVMTSP	LYLEII IYCT	GAF LISC MVG	SVIVYKMKSG	TKKSDFHSQM	AVHKLAKSIP	420
421	LRRQVTVSAD	SSAS MNSGVL	LVRPSRLSSS	GTPMLAGVSE	YELPEDRWE	LPRDRLVLGK	480
481	PLGEGCFGQV	VLAEAIGLDK	DKPNRVTKVA	VKMLKSDATE	KDLSDLISEM	EMMKMIGKHK	540
541	NIINLLGACT	QDGPLYVIVE	YASKGNLREY	LQARRPPGLE	YCYNPSHNPE	EQLSSKDLVS	600
600	CAYQVARGME	YLASKKCIHR	DLAARNVLVT	EDNMKIADF	GLARDIHHID	YKKTNGRL	660
661	PVKWMAPEAL	FDRIYTHQSD	VWSFGVLLWE	IFTLGGSPYP	GVPVEELFKL	LKEGHRMDKP	720
721	SNCTNELYMM	MRDCWHAVPS	QRPTFKQLVE	LDRIVALTS	NQEYLDLSMP	LDQYSPSPFD	780
781	TRSTCSSGE	DSVFSHEPLP	EEPCLPRHPA	QLANGGLKRR			840

blue: FGF-R1 sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹[NCBI/Protein](#) accession number NP_056934.2

P467L: Sequence conflict: see UniProt P11362 and GenBank M37722.1