

FGF-R2

fibroblast growth factor receptor 2

Recombinant Human Active Protein Kinase

HGNC Symbol: FGFR2

Synonyms: BEK, BFR-1, CD332, CEK3, CFD1, ECT1, FGFR-2, JWS, KGFR, KSAM, K-SAM, TK14, TK25

Product No.: 1404-0000-1

Lot: 005

Description: Human FGF-R2, C-terminal fragment, amino acids R₄₀₀-T₈₂₂ (as in [NCBI/Protein](#) entry NP_075259.4), N-terminal GST-HIS₆ fusion protein with a Thrombin and 3C protease cleavage site, expressed in Sf9 insect cells

Product identity: FGF-R2 Lot 005, was confirmed as FGF-R2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 79,577 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: 0.171 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

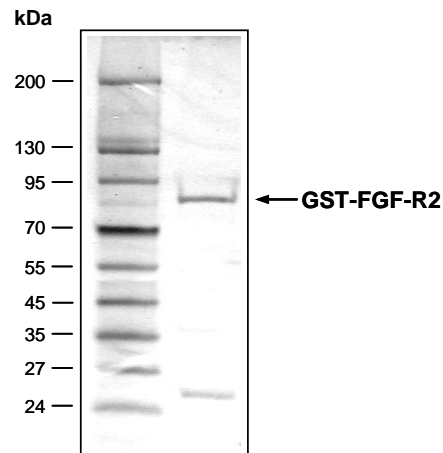
Biochemical Parameters:

Specific kinase activity (P_i transfer): 102 pmol/µg × min
ATP-K_M: 1.8 µM

Additional assay technology:

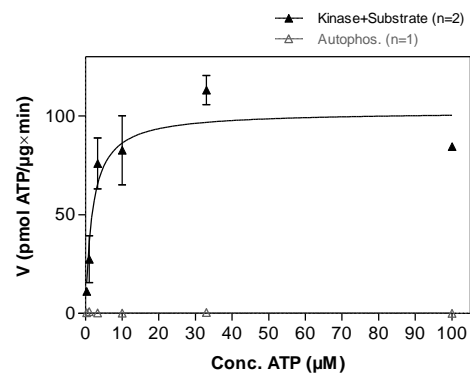
FGF-R2 Lot 005 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

FGF-R2 Lot 005: Coomassie stain



2.0 µg GST-FGF-R2

FGF-R2 Lot 005: 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: TRK-C derived peptide, 2.5 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

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GST-FGF-R2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLIERDEGDK	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	GSTSGSG	HHH HHSAGLVPR	240
241	GSTAIGMKET	AAAKFERQHM	DSPDLGT	LEV LFQGPGRMK	NTTKKPDFSS	QPAVHKLTKR	300
301	IPLRRQVTVS	AESSSSMNSN	TPLVRITTRL	SSTADTPMLA	GVSEYELPED	PKWEFPRDKL	360
361	TLGKPLGEGC	FGQVVM AEAV	GIDKDKPKEA	VTAVKMLKD	DATEKDLSL	VSEMEMMKMI	420
421	GKHKNIINLL	GACTQDGP LY	VIVEYASKGN	LREYLRRAR	PGMEYSYDIN	RVPEEQMTFK	480
481	DLVSC TYQLA	RGMEYLASQK	CIHRDLAARN	VLV TENVMK	IADFG LARDI	NNIDYYKKT	540
541	NGRLPVK WMA	PEALFDRVYT	HQSDVWSFGV	LMWEIFTLGG	SPYPGIPVEE	LFKLLKEGHR	600
601	MDK PANCTNE	LYMMRDCWH	AVPSQRPTFK	QLVEDLDRIL	TLTTN EYLD	LSQPLEQYSP	660
661	SPDTRSSCS	SGDSDSVFSP	PMPYEPCLPQ	YPHINGSVKT			720

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **Green**: 3C/TEV cleavage site **blue**: FGF-R2 fragment

FGF-R2 wt ¹ Amino Acid Sequence							
1	MVSWGRFICL	VVVTMATLSL	ARPSFSLVED	TLEPEEPPT	KYQISQPEVY	VAAPGESLEV	60
61	RCLLKDAAVI	SWTKDGVHLG	PNNRTVLIGE	YLQIKGATPR	DSGLYACTAS	RTVDSETWYF	120
121	MVNVTDAISS	GDEDDTDGA	EDFVSENSNN	KRAPYWTNTE	KMEKRLHAVP	AANTVKFRCP	180
181	AGGNPMP TMR	WLKNGKEFKQ	EHRIGGYKVR	NQHWSLIMES	VVPSDKGNYT	CVVENEYGSI	240
241	NHTYHLDVVE	RSPHRPILQA	GLPANASTVV	GGDVEFVCKV	YSDAQPHIQW	IKHVEKNGSK	300
301	YGPDGLPYLK	VLKHSGINSS	NAEVLALFNV	TEADAGEYIC	KVSNYIGQAN	QSAWLTVLPK	360
361	QQAPGREKEI	TASPDYLEIA	IYCIGVFLIA	CMVVTVILCR	MKNTTKKPDF	SSQPAVHKL T	420
421	KRIPLRRQVT	VSAESSSSMN	SNTPLVRIT	RLSSTADTPM	LAGVSEYELP	EDPKWEFPRD	480
481	KLTLGKPLGE	GCFGQVVM AE	AVGIDKDKPK	EAVTVAVKML	KDDATEKDLS	DLVSEMEMMK	540
541	MIGKHKNIIN	LLGACTQDGP	LYVIVEYASK	GNLREYLRRAR	RPPGMEYSYD	INRVPEEQMT	600
601	FKDLVSC TYQ	LARGMEYLAS	QKCIHRDLAA	RNVLV TENNV	MKIADFGLAR	DINNIDYYKK	660
661	TTNGRLPVKW	MAPEALFDRV	YTHQSDVWSF	GVL MWEIFTL	GGSPYPGIPV	EELFKLLKEG	720
721	HRMDK PANCT	NELYMMRDC	WHA VPSQRPT	FKQLVEDLDR	ILTLTTN EY	LDLSQPLEQY	780
781	SPSYDTRSS	CSSGSDSVFS	PDPMPYEPCL	PQYPHINGSV	KT		840

blue: FGF-R2 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_075259.4

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