

ProQinase™ FGFR3 K650E

fibroblast growth factor receptor 3

Recombinant Human Active Protein Kinase

HGNC Symbol: FGFR3

Synonyms: ACH, CD333, CEK2, FGFR-3, HSFGR3EX, JTK4

Product No.: 1070-0000-1

Lot: 002

Description: Human FGFR3, C-terminal fragment, amino acids R₃₉₇-T₈₀₆ (as in [NCBI/Protein](#) entry NP_000133.1) with a K650E mutation, N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: FGFR3 K650E Lot 002, was confirmed as FGFR3 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 73,935 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: 0.191 µg/µl

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

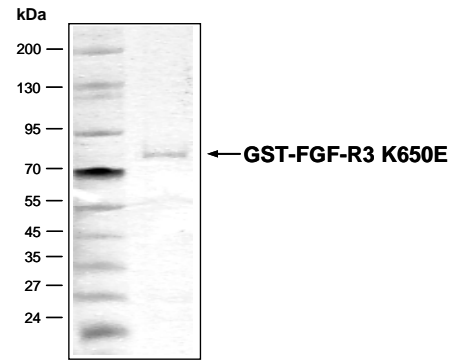
Biochemical Parameters:

Specific kinase activity (P_i transfer): 155 pmol/µg x min

ATP-K_M: 2.9 µM

FGFR3 K650E Lot 002:

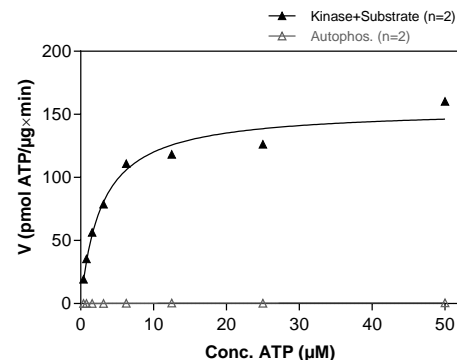
Coomassie stain



2.0 µg GST-FGF-R3 K650E

FGFR3 K650E Lot 002:

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: TRKC derived peptide 40 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

Additional assay technology:

FGFR3 K650E lot002 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

Recombinant Proteins

Sequence information

GST-FGFR3 K650E Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGQWQATF	GGGDHPPKSD	PMG HHHHHHG	RDS LEVLFQG	240
241	P LAMVRLRSP	P KKGLGSP T V	H KISRFPL K R	Q VSLESNAS M	S SNTPLV R IA	R LSSGEG P TL	300
301	A NVSELE L PA	D PKWELSR A R	L TLGKPL G EG	C FGQV M AE A	I GIDK D RA K	P VTVA V K M L K	360
361	D DATD K D L S	L VSEMEM M K M	I GKH K NI I N L	L GACT Q GG P L	Y VLVE Y AA K G	N LREF L R A R	420
421	P PGLD Y S F D T	C K P EE Q L T F	K D L V S C A Y Q V	A R G ME Y LA S Q	K C I H R D L A A R	N V L V T E D N V M	480
481	K I A D F GL A R	V H N L D Y K E T	T N G R L P V K W M	A P E A L F D R V Y	T H Q S D V S F G	V L L W E I F T L G	540
541	G S P Y P G I P V E	E L F K L L K E G H	R M D K P A N C H	D L Y M I M R E C W	H A A P S Q R P T F	K Q L V E D L D R V	600
600	L T V T S T D E Y L	D L S A P F E Q Y S	P G G Q D T P S S	S S G D S V F A H	D L L P P A P P S S	G G S R T	660

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: FGF-R3 fragment **boxed**:K650E mutation

FGFR3 wt ¹ Amino Acid Sequence							
1	MGAPACALAL	CVAVAIVAGA	SSESLGTEQR	VVGRAAEVPG	PEPGQQEQLV	FGSGDAVELS	60
61	CPPPPGGPMG	PTVWVKDGTG	LVPSEVLVVG	PQRLQVLNAS	HEDSGAYSCR	QRLTQRVLCH	120
121	FSVRVTDAPS	SGDDEDGEDE	AEDTGVDTGA	PYWTRPERMD	KKLLAVPAAN	TVRFRCPAAG	180
181	NPTPSISWLK	NGREFRGEHR	IGGIKLRHQQ	WSLVMESVVP	SDRGNYTCVV	ENKFGSIRQT	240
241	YTLDVLERSP	HRPILQAGLP	ANQTAVLGSD	VEFHCKVYSD	AQPHIQWLKH	VEVNGSKVGP	300
301	DGTPYVTVLK	TAGANTDKE	LEVLSLHNVT	FEDAGEYTCL	AGNSIGFSHH	SAWLVLPAE	360
361	EELVEADEAG	SVYAGILSYG	VGFFFLILVV	AAVTLCRLRS	P PK K GLG S P T	V H K I S R F PL K	420
421	R Q V S L E S N A S	M S S N T P L V R I	A R L S S G E G P T	L A N V S E L E L P	A D P K W E L S R A	R L T L G K P L G E	480
481	G C F G Q V M A E	A I G I D K D R A A	K P V T V A V K M L	K D D A T D K D L S	D L V S E M E M M K	M I G H K H K N I I N	540
541	L L G A C T Q G G P	L Y V L V E Y A A K	G N L R E F L R A R	R P P G L D Y S F D	T C K P P E E Q L T	F K D L V S C A Y Q	600
600	V A R G M E Y L A S	Q K C I H R D L A A	R N V L V T E D N V	M K I A D F L G L A	D V H N L D Y Y K	T T N G R L P V K W	660
661	M A P E A L F D R V	Y T H Q S D V S F	G V L L W E I F T L	G G S P Y P G I P V	E E L F K L L K E G	H R M D K P A N C T	720
721	H D L Y M I M R E C	W H A A P S Q R P T	F K Q L V E D L D R	V L T V T S T D E Y	L D L S A P F E Q Y	S P G Q D T P S S	780
781	S S S G D S V F A	H D L L P P A P S S	S G G S R T				840

blue: kinase sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein/NP_000133.1) accession number NP_000133.1