

FGF-R3 K650E

fibroblast growth factor receptor 3

Recombinant Human Active Protein Kinase

HGNC Symbol: FGFR3

Synonyms: ACH, CD333, CEK2, FGFR-3, HSVGFR3EX, JTK4

Product No.: 1070-0000-1

Lot: 001

Description: Human FGF-R3, 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: FGF-R3 K650E, Lot 002, was confirmed as FGF-R3 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 73,935 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol

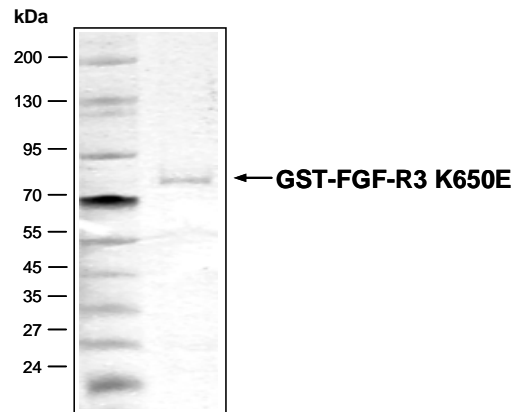
Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

Protein concentration: 0.191 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

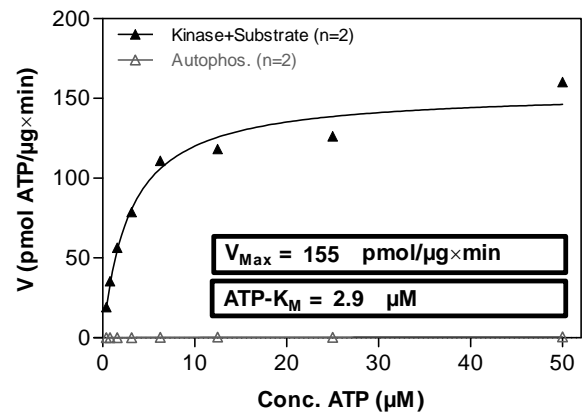
Specific activity: 155 pmol/µg×min
ATP-K_M: 2.9 µM

**FGF-R3 K650E Lot 002:
Coomassie stain**



2.0 µg GST-FGF-R3 K650E

**FGF-R3 K650E 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: TRK-C-derived Peptide (R11-VYSTDYRFLNPS), 40 µg / ml
 - FGF-R3 K650E: 1.0 µg / ml
- Filter binding assay
 - MSPH membrane (Millipore)

Additional assay technology: FGF-R3 K650E Lot 002

was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from



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FGF-R3 K650E

Product No.: 1070-0000-1

| FGF-R3 K650E Recombinant Fusion Protein Amino Acid Sequence | | | | | | | |
|---|-------------|---------------|-------------|-------------|-------------|-------------|-----|
| 1 | MSPILGYWKI | KGLVQPTRL | LEYLEEKYE | HLYERDEGDK | WRNKKFELGL | EFPNLPYYID | 60 |
| 61 | GDVKLTQ SMA | IIRYIADKHN | MLGGCPKERA | EISMLEGAVL | DIRYGVSRIA | YSKDFETLKV | 120 |
| 121 | DFLSKLP EML | KMFEDRLCHK | TYLNGDHVTH | PDFMLYDALD | VVLYMDPMCL | DAFPKLVCFK | 180 |
| 181 | KRIEAI PQID | KYLKSSKYIA | WPLQGWQATF | GGGDHPPKSD | PMGHHHHHGG | RDSLEVL FQG | 240 |
| 241 | PLAMVRLRSP | PKKGLGSPTV | HKISRFP LKR | QVSLESNASM | SSNTPLVRIA | RLSSGEGPTL | 300 |
| 301 | ANVSELELPA | DPKWELSRAR | LTLGKPLGEG | CFGQVVM AEA | IGIDKDRAAK | PVTVAVKMLK | 360 |
| 361 | DDATDKDLS D | LVSEMEMMKM | IGKHKNIINL | LGACTQGGPL | YVLVEYAAKG | NLREFLRARR | 420 |
| 421 | PPGLDYSFDT | CKPPEEQ LTF | KDLVSCAYQV | ARGMEYLA SQ | KCIHRDLAAR | NVLVTE DNVM | 480 |
| 481 | KIADFGLAR D | VHNL DYYK E T | TNGRLPVKWM | APEALFDRVY | THQSDVWSFG | VLLWEIFTLG | 540 |
| 541 | GSPYPGIPVE | ELFKLLKEGH | RMDK PANCTH | DLYMIMREC W | HAAPSQRPT F | KQLVEDLDRV | 600 |
| 600 | LTVTSTDEYL | DL SAPFEQYS | PGGQDTPSS | SSGDDSVFAH | DLLPPAPPS | GG SRT | 660 |

1-218: GST Red: HIS6-tag Green: 3C blue:FGF-R3 fragment E: K650E mutation

| FGF-R3 wt ¹ amino acid sequence | | | | | | | |
|--|-------------|------------|-------------|------------|--------------|-------------|-----|
| 1 | MGAPACALAL | CVAVAIVAGA | SSESLGTEQR | VVGRAAEVPG | PEPGQQEQLV | FGSGDAVELS | 60 |
| 61 | CPPPGGGPMG | PTVWVKDGTG | LVPSE RVLVG | PQRLQVLNAS | HEDSGAYSCR | QRLTQRVLCH | 120 |
| 121 | FSVRVTDAPS | SGDDEGDEDE | AEDTGVDTGA | PYWTRPERMD | KLLAVPAAN | TVRFRCPAAG | 180 |
| 181 | NPTPSISWLK | NGREFRGEHR | IGGIKLRHQQ | WSLVMESVVP | SDRGNYTCVV | ENKFGSIRQT | 240 |
| 241 | YTLDV LERSP | HRPILQAGLP | ANQTAVLGSD | VEFHCKVYSD | AQPHIQWLKH | VEVNGSKVGP | 300 |
| 301 | DGTPYVTVLK | TAGANTTDKE | LEVLSLHNVT | FEDAGEYTCL | AGNSIGFSHH | SAWLVVLP AE | 360 |
| 361 | EELVEADEAG | SVYAGILSYG | VGFFLFILVV | AAVTLCRLRS | PPKKGLGSPT | VHKISRFP LK | 420 |
| 421 | RQVSLESNAS | MSSNTPLVRI | ARLSSGEGPT | LANVSELELP | ADPKWELSR A | RLTLGKPLGE | 480 |
| 481 | GCFGQVMAE | AIGIDKDRAA | KPVTVAVKML | KDDATDKDLS | DLVSEMEMMK | MIGKHKNIIN | 540 |
| 541 | LLGACTQGGP | LYVLVEYAAK | GNLREFLRAR | RPPGLDYSFD | TCKPPEEQ L T | FKDLVSCAYQ | 600 |
| 600 | VARGMEYLA S | QKCIHRDLAA | RNLVTE DN V | MKIADFGLAR | DVHNL DYYK E | TTNGRLPVKW | 660 |
| 661 | MAPEALFDRV | YTHQSDVWSF | GVLLWEIFTL | GGSPYPGIPV | EELFKLLKEG | HRMDK PANCT | 720 |
| 721 | HDLYMIMREC | WHAAPSQRPT | FKQLVEDLDR | VLTVTSTDEY | LDLSAPFEQY | SPGGQDTPSS | 780 |
| 781 | SSGDDSVFA | HDLLPPAPPS | SGGSRT | | | | 840 |

blue: fragment of FGF-R3 expressed in fusionprotein Red: variant in fusionprotein

¹NCBI/Protein accession number NP_000133.1