

ProQinase™ FGFR4 V550E

fibroblast growth factor receptor 4

Recombinant Human Active Protein Kinase

HGNC Symbol: FGFR4

Synonyms: JTK2, CD334

Product No.: 1771-0000-1

Lot: 001

Description: Human FGFR4, C-terminal fragment, amino acids R₃₉₁-T₈₀₂ (as in [NCBI/Protein](#) entry NP_002002.3), with a V550E point mutation, N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: FGFR4 V550E Lot 001, was confirmed as FGFR4 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 73,724 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: 0.27 µg/µl

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

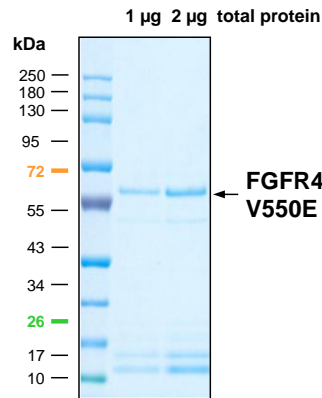
Biochemical Parameters:

Specific kinase activity (P_i transfer): 6.8 pmol/µg x min

ATP-K_M: 0.84 µM

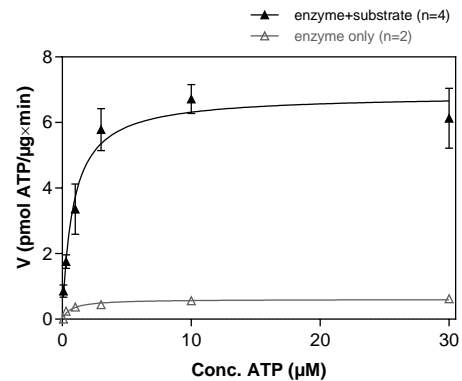
FGFR4 V550E Lot 001:

Coomassie stain



FGFR4 V550E Lot 001:

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: Poly(E/Y)_{4:1} 20 µg/ml
 - Kinase: 4 µg/ml
- Filter binding assay
 - MSFC membrane (Corning)

Recombinant Proteins

Sequence information

| GST-FGFR4 V550E Recombinant Fusion Protein Amino Acid Sequence | | | | | | | |
|--|----------------------------|-------------------|-------------------|-------------------|--------------------|---------------------|-----|
| 1 | MSPILGYWKI | KGLVQPTRL | LEYLEEKYEE | HLIERDEGDK | WRNKKFELGL | EFPNLPYYID | 60 |
| 61 | GDVKLTQSM | IIRYIADKH | MLGGCPKERA | EISMLEGAVL | DIRYGVSRIA | YSKDFETLKV | 120 |
| 121 | DFLSKLP | KMFKDR | TYLNGDHVTH | PDFMLYDALD | VVLYMDPMCL | DAFPKLVCFK | 180 |
| 181 | KRIEAI | KYLKSSKYIA | WPLQGWQATF | GGGDHPPKSD | PMG HHHHHG | RDS LEVL FQG | 240 |
| 241 | P LAMVR GQAL | HGRHPRPPAT | VQKLSRFPLA | RQFSLESGSS | GKSSSSLV RG | VRLSSSGPAL | 300 |
| 301 | LAGLVSLDLP | LDPLWEFPRD | RLVLGKPLGE | GCFGQVVRAE | AFGMDPARPD | QASTVAVKML | 360 |
| 361 | KDNASDKDLA | DLVSEMEVMK | LIGRHKNIIN | LLGVCTQEGP | LYVIE CAAK | GNLREFLRAR | 420 |
| 421 | RPPGPDLSPD | GPRSSSEGPL | FPVLVSCAYQ | VARGMQYLES | RKCIHRDLAA | RNVLVTEDNV | 480 |
| 481 | MKIADFGLAR | GVHHIDYYK | TSNGRLPVKW | MAPEALFDRV | YTHQSDVWSF | GILLWEIFTL | 540 |
| 541 | GGSPYPGIPV | EELFSLREG | HRMDRPPHCP | PELYGLMREC | WHAAPSQRPT | FKQLVEALDK | 600 |
| 601 | VLLAVSEEYL | DLRLTFGPYS | PSGGDASSTC | SSSDSVFSD | PLPLGSSSFP | FGSGVQT | 660 |

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: FGFR4 fragment **boxed**: V550E mutation

| FGFR4 wt ¹ Amino Acid Sequence | | | | | | | |
|---|--------------------|--------------------|-------------------|-------------------|--------------------|-------------------|-----|
| 1 | MRLLLALLGV | LLSVPGPPVL | SLEAEEVEL | EPCLAPSLEQ | QEQLTVALG | QPVRLCCGRA | 60 |
| 61 | ERGGHWYKEG | SRLAPAGRVR | GWRGRLEIAS | FLPEDAGRYL | CLARGSMIVL | QNLTLITGDS | 120 |
| 121 | LTSSNDDDED | KSHRDPSNRH | SYPQQAPYWT | HPQRMEKKLH | AVPAGNTVKF | RCPAAGNPTP | 180 |
| 181 | TIRWLKDGQA | FHGENRIGGI | RLRHQHWSLV | MESVVPDRG | TYTCLVENAV | GSIRYNYLLD | 240 |
| 241 | VLERSPHRPI | LQAGLPANTT | AVVGSDEVLL | CKVYSDAQPH | IQWLKHIVIN | GSSFADGFP | 300 |
| 301 | YVQVLKTADI | NSSEVEVLYL | RNVSAEDAGE | YTCLAGNSIG | LSYQSAWLT | LPEEDPTWTA | 360 |
| 361 | AAPEARYTDI | ILYASGSLAL | AVLLLLAGLY | RGQALHGRHP | RPPATVQKLS | RFPLARQFSL | 420 |
| 421 | ESGSSGKSSS | SLVRGVR LSS | SGPALLAGLV | SLDPLDPLW | EFPRDRLVLG | KPLGEGCFGQ | 480 |
| 481 | VVRAEAFGMD | PARPDQASTV | AVKMLKDNAS | DKDLADVSE | MEVMKLIGRH | KNIINLLGVC | 540 |
| 541 | TQEGPLYVI V | ECAA GNLRE | FLRARRPPGP | DLSPDGPRS | EGPLSFPVLV | SCAYQVARGM | 600 |
| 601 | QYLESR KCIH | RDLAARNLV | TEDNMKIAD | FGLARGVHHI | DYYKKT SNGR | LPVKWMAPEA | 660 |
| 661 | LFDRVYTHQS | DVWSFGILLW | EIFTLGGSPY | PGIPVEELF | LLREGHRMDR | PPHCPPELYG | 720 |
| 721 | LMREC WHAAP | SQRPTFKQLV | EALDKVLLAV | SEEYLDLRLT | FGPYSPSGGD | ASSTCSSSDS | 780 |
| 781 | VFSD PLPLG | SSSFP FGSGV | QT | | | | 840 |

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

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein/NP_002002.3) accession number NP_002002.3