

ProQinase™ FGFR4 N535K

fibroblast growth factor receptor 4

Recombinant Human Active Protein Kinase

HGNC Symbol: FGFR4

Synonyms: JTK2, CD334

Product No.: 1770-0000-1

Lot: 001

Description: Human FGFR4, C-terminal fragment, amino acids R₃₉₁-T₈₀₂ (as in [NCBI/Protein](#) entry NP_002002.3), with a N535K point mutation, N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: FGFR4 N535K Lot 001, was confirmed as FGFR4 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 73,708 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: 0.37 µg/µl

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

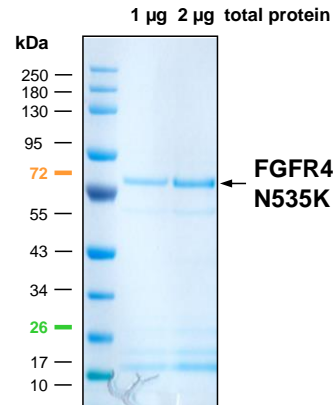
Biochemical Parameters:

Specific kinase activity (P_i transfer): 3.4 pmol/µg x min

ATP-K_M: 0.45 µM

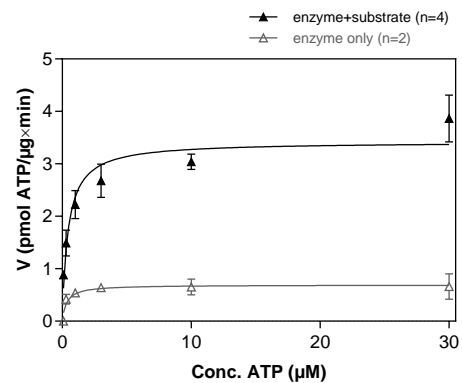
FGFR4 N535K Lot 001:

Coomassie stain



FGFR4 N535K 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 N535K Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFKDR LCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWAQATF	GGGDHPPKSD	PMG HHHHHH G	RDS LEVLFQG	240
241	P LAMVRGQAL	HGRHPRPPAT	VQKLSRFPLA	RQFSLESGSS	GKSSSSLVRG	VRLSSSGPAL	300
301	LAGLVSLDLP	LDPLWEFPRD	RLVLGKPLGE	GCFGQVVRAE	AFGMDPARPD	QASTVAVKML	360
361	KDNASDKDLA	DLVSEMEVMK	LIGRHKNIIK	LLGVCTQEGP	LYVIVECAAK	GNLREFLRAR	420
421	RPPGPDLSPD	GPRSSEGPLS	FPVLVSCAYQ	VARGMQYLES	RKCIHRDLAA	RNVLVTEDNV	480
481	MKIADFGLAR	GVHHIDYYK	TSNGRLPVKW	MAPEALFDRV	YTHQSDVWSF	GILLWEIFTL	540
541	GGSPYPGPIV	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**: N535K 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	GSSFADGDFP	300
301	YVQVLKTADI	NSSEVEVLYL	RNVSAEDAGE	YTCLAGNSIG	LSYQSAWLTV	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	TQEGPLYVIV	ECAAAGNLRE	FLRARRPPGP	DLSPDGPRSS	EGPLSFPVLV	SCAYQVARGM	600
601	QYLESRKCIIH	RDLAARNVLV	TEDNMKIAD	FGLARGVHHI	DYYKKT SNGR	LPVKWMAPEA	660
661	LFDRVYTHQS	DVWSFGILLW	EIFTLGGSPY	PGIPVEELFS	LLREGHRMDR	PPHCPPELYG	720
721	LMRECWHAAP	SQRPTFKQLV	EALDKVLLAV	SEEYLDLRLT	FGPYSPSGGD	ASSTCSSSDS	780
781	VFSDHPLPLG	SSSFPFGSGV	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