

## ProQinase™ PDGFR-alpha T674I

platelet-derived growth factor receptor, alpha polypeptide

**Recombinant Human Active Protein Kinase**

**HGNC Symbol:** PDGFRA

**Synonyms:** PDGFRA, PDGFR2, CD140a

**Product No.:** 0760-0000-1

**Lot:** 002

**Description:** Human PDGFR-alpha, C-terminal fragment, amino acids Q<sub>551</sub>-L<sub>1089</sub> (as in NCBI/Protein entry NP\_006197.1) with a T674I mutation, N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** PDGFR-alpha T674I Lot 002, was confirmed as PDGFR-alpha by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW<sub>Fusion Protein</sub>:** 89,905 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!

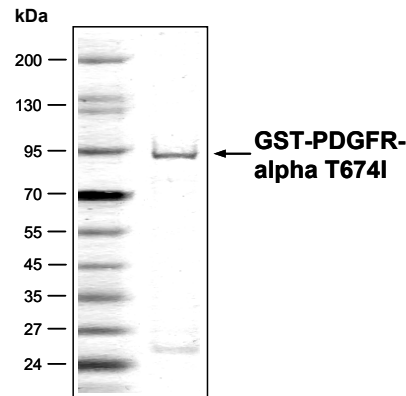
**Protein concentration:** 0.162 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Biochemical Parameters:**

Specific activity: 22 pmol/µg×min

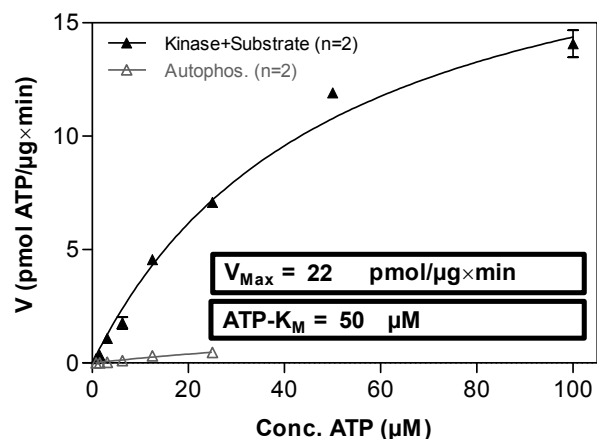
ATP-K<sub>M</sub>: 50 µM

**PDGFR-alpha T674I Lot 002:  
Coomassie stain**



2.0 µg GST-PDGFR-alpha T674I

**PDGFR-alpha T674I Lot 002:  
Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP**



**Determination of K<sub>M</sub> value & Specific activity:**

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg / ml PEG<sub>20,000</sub>
  - ATP (variable)
  - Substrate: TRK-C-derived peptide, 80 µg / ml
  - PDGFR-alpha T674I: 1.0 µg / ml
- Filter binding assay
  - MSFC membrane (Millipore)

**Additional assay technology:** PDGFR-alpha T674I Lot 002

was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details



# ProQinase™ PDGFR-alpha T674I

Product No.: 0760-0000-1

Recombinant Proteins

## PDGFR-alpha T674I Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGQ	240
241	PLAMGQKPRY	EIRWRVIESI	SPDGHEYIYV	DPMQLPYDSR	WEFPRDGLVL	GRVLGSGAFG	300
301	KVVEGTAYGL	SRSQPVMKVA	VKMLKPTARS	SEKQALMSEL	KIMTHLGPLH	NIVNLLGACT	360
361	KSGPIYIIE	YCFYGDLVNY	LHKNRDSFSL	HHPEKPKKEL	DIFGLNPADE	STRSYVILSF	420
421	ENNGDYMDMK	QADTTQYVPM	LERKEVSKYS	DIQRSLYDRP	ASYKKKSMLE	SEVKNLLSDD	480
481	NSEGLTLLDL	LSFTYQVARG	MEFLASKNCV	HRDLAARNVL	LAQGKIVKIC	DFGLARDIMH	540
541	DSNYVSKGST	FLPVKWMape	SIFDNLYTTL	SDVWSYGILL	WEIFSLGGTP	YPGMMVDSTF	600
600	YNKIKSGYRM	AKPDHATSEV	YEIMVKCWSN	EPEKRPSFYH	LSEIVENLLP	GQYKKSYEKI	660
661	HLDFLKSDFP	AVARMRVDS	NAYIGVITYKN	EEDKLDWEG	GLDEQRSLAD	SGYIIPLDI	720
721	DPVPEEEDLG	KRNRHSSQTS	EESALETGSS	SSTFIKREDE	TIEDIDMDD	IGIDSSDLVE	780
781	DSFL						840

1-218: GST    Red: HIS6-tag    Green: 3C    blue:PDGFR-alpha fragment    I: T674I mutation

## PDGFR-alpha wt<sup>1</sup> amino acid sequence

1	MGTSHPAFLV	LGCLLTGLSL	ILCQLSLPSI	LPNENEKVVQ	LNSSFSLRCF	GESEVSWQYP	60
61	MSEEESSDVE	IRNEENNSGL	FVTVLEVSSA	SAAHTGLYTC	YNNHTQTEEN	ELEGRHIYIY	120
121	VPDPDVAFVP	LGMTDYLVIV	EDDDSAIIPC	RTTDPETPVT	LHNSEGVPVA	SYDSRQGFNG	180
181	TFTVGPYICE	ATVKGKKFQT	IPFNVYALKA	TSELDLEMEA	LKTVYKSGET	IVVTCAVFNN	240
241	EVVDLQWTYP	GEVKGKGITM	LEEIKVPSIK	LVYTLTVPEA	TVKDSGDYEC	AARQATREVK	300
301	EMKKVTISVH	EKGFIKPT	FSQLEAVNLH	EVKHFVVEVR	AYPPPRI SWL	KNNLTLIENL	360
361	TEITTDVEKI	QEIRYRSLK	LIRAKEEDSG	HYTIVAQNED	AVKSYTFELL	TQVPSSILD	420
421	VDDHHGSTGG	QTVRCTAEGT	PLPDIEWMIC	KDIKKCNET	SWTILANNVS	NIITEIHSRD	480
481	RSTVEGRVTF	AKVEETIAVR	CLAKNLLGAE	NRELKLVAPT	LRSELTVA	VLVLLVIVII	540
541	SLIVLVVIWK	QKPRYEIRWR	VIESISPDGH	EYIYVDPMQL	PYDSRWEFPR	DGLVLGRVLG	600
600	SGAFGKVVVEG	TAYGLSRSQP	VMKVAVKMLK	PTARSSEKQA	LMSELKIMTH	LGPHLNIVNL	660
661	LGACTKSGPI	YIITEYCFYG	DLVNYLHKNR	DSFLSHHPEK	PKKELDIFGL	NPADESTRSY	720
721	VILSFENNGD	YMDMKQADTT	QYVPLMERKE	VSKYSDIQRS	LYDRPASYKK	KSMLDSEVKN	780
781	LLSDDNSEGL	TLLDLLSFTY	QVARGMEFLA	SKNCVHRDLA	ARNVLLAQGK	IVKICDFGLA	840
841	RDIMHDSNYV	SKGSTFLPVK	WMAPE SIFDN	LYTTLSDVWS	YGILLWEIFS	LGTPYPGMM	900
901	VDSTFYNKIK	SGYRMAKPDH	ATSEVYEIMV	KCWNSEPEKR	PSFYHLSEIV	ENLLPGQYKK	960
961	SYEKIHLDFL	KSDHPAVARM	RVDSNAYIG	VTYKNEEDKL	KDWEGLDEQ	RLSADSGYII	1020
1021	PLPDIDPVPE	EEDLGKRNHR	SSQTSEESAI	ETGSSSSTFI	KREDETIEDI	DMMDDIGIDS	1080
1081	SDLVEDSFL						1140

blue: PDGFR-alpha sequence expressed in fusionprotein    Red: variant in fusionprotein

<sup>1</sup>NCBI/Protein accession number NP\_006197.1