

ProQinase™ PDGFR-alpha wt

platelet derived growth factor receptor alpha

Recombinant Human Active Protein Kinase

HGNC Symbol: PDGFRA

Synonyms: PDGFR2, CD140a, GAS9

Product No.: 1057-0000-1

Lot: 011

Description: Human PDGFR-alpha, C-terminal fragment, amino acids Q₅₅₁-L₁₀₈₉ (as in [NCBI/Protein](#) entry NP_006197.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: PDGFR-alpha wt Lot 011, was confirmed as PDGFR-alpha by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 89,907 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: 0.203 µg/µl

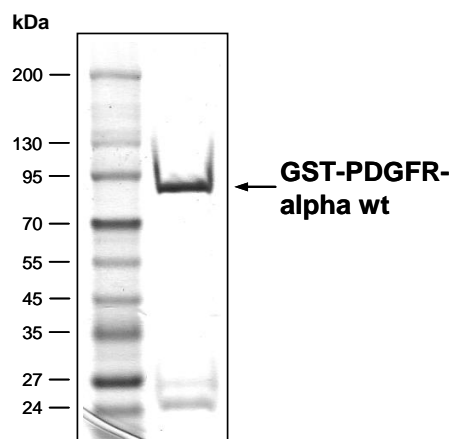
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 118 pmol/µg × min

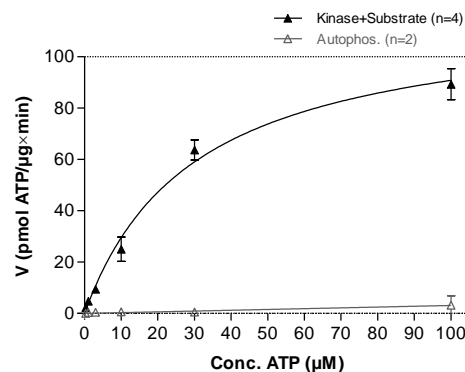
ATP-K_M: 30 µM

PDGFR-alpha wt Lot 011:
Coomassie stain



2.0 µg GST-PDGFR-alpha wt

PDGFR-alpha wt Lot 011:
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: TRK-C derived peptide 80 µg/ml
 - Kinase: 2 µg/ml
- Filter binding assay
 - MSPH membrane (Millipore)

Additional assay technology:

PDGFR-alpha wt Lot 011 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

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GST-Kinase Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	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	PMG HHHHHG	RDS LEVLFQG	240
241	PLAMGQKPRY	EIRWRIESI	SPDGHEYIYV	DPMQLPYDSR	WEFPRDGLVL	GRVLGSGAFG	300
301	KVVEGTAYGL	SRSQPVMKVA	VKMLKPTARS	SEKQALMSEL	KIMTHLGPLH	NIVNLLGACT	360
361	KSGPIYIITE	YCFYGDLVNY	LHKNRDSFLS	HHPEKPKKEL	DIFGLNPADE	STRSYVILSF	420
421	ENNGDYMDMK	QADTTQYVPM	LERKEVSKYS	DIQRSLYDRP	ASYKKKSMLE	SEVKNLLSDD	480
481	NSEGLTLLDL	LSFTYQVARG	MEFLASKNCV	HRDLAARNVL	LAQ GKIVKIC	DFGLARDIMH	540
541	DSNYVSKGST	FLPVKWMAPE	SIFDNLYTTL	SDVWSYGILL	WEIFSLGGTP	YPGMMVDSTF	600
600	YNKIKSGYRM	AKPDHATSEV	YEIMVKCWNS	EPEKRPSFYH	LSEIVENLLP	GQYKKSYEKI	660
661	HLDFLKSDHP	AVARMRVSD	NAYIGVTYKN	EEDKLDWEG	GLDEQRLSAD	SGYIIPLPDI	720
721	DPVPEEEDLG	KRNRHSSQTS	EESAIETGSS	SSTFIKREDE	TIEDIDMDD	IGIDSSDLVE	780
781	DSFL						840

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: PDGFR-alpha fragment

PDGFR-alpha wt ¹ Amino Acid Sequence							
1	MGTSHPAFLV	LGCLLTGLSL	ILCQLSLPSI	LPNENEKVQ	LNSSFSLRCF	GESEVSWQYP	60
61	MSEEESSDVE	IRNEENNSGL	FVTVLEVSSA	SAAHTGLYTC	YYNHTQTEEN	ELEGRHIYY	120
121	VPDPDVAFVP	LGMTDYLIV	EDDDSAIIPC	RTTDPETPVT	LHNSEGVPVA	SYDSRQGFNG	180
181	TFTVGPYICE	ATVKGKKFQT	IPFNVYALKA	TSELDLEMEA	LKTVYKSGET	IVVTCAVFNN	240
241	EVVDLQWTYP	GEVKGKGITM	LEEIKVPSIK	LVYTLTVPEA	TVKDSGDYEC	AARQATREVK	300
301	EMKKVTISVH	EKGFIIEIKPT	FSQLEAVNLH	EVKHFVVEVR	AYPPPRI SWL	KNNLTLIENL	360
361	TEITTDVEKI	QEIRYRSKPK	LIRAKEEDSG	HYTIVAQNE	AVKSYTFELL	TQVPSSILDL	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	SGAFGKVVEG	TAYGLSRSQP	VMKVAVKMLK	PTARSSEKQA	LMSELKIMTH	LGPHLNIVNL	660
661	LGACTKSGPI	YIITEYCFYG	DLVNYLHKNR	DSFLSHHPEK	PKKELDIFGL	NPADESTRSY	720
721	VILSFENNGD	YMDMKQADTT	QYVPMLEKE	VSKYSDIQRS	LYDRPASYYK	KSMLDSEVKN	780
781	LLSDDNSEGL	TLLDLLSFTY	QVARGMEFLA	SKNCVHRDLA	ARNVLLAQGK	IVKICDFGLA	840
841	VDIMHDSNYV	SKGSTFLPVK	WMAPE SIFDN	LYTTLSDVWS	YGILLWEIFS	LGSTPYPGMM	900
901	VDSTFYNKIK	SGYRMAKPDH	ATSEVEIMV	KCWNSEPEKR	PSFYHLSEIV	ENLLPGQYK	960
961	SYEKIHLDFL	KSDHPAVARM	RVDSNAYIG	VTYKNEEDKL	KDWEGLDEQ	RLSADSGYII	1020
1021	PLPDIDPVPE	EEDLGKRRNH	SSQTSEESAI	ETGSSSSTFI	KREDETIEDI	DMMDDIGIDS	1080
1081	SDLVEDSFL						1140

blue: PDGFR-alpha sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_006197.1