

ProQinase™ PDGFR-beta

platelet derived growth factor receptor beta

Recombinant Human Active Protein Kinase

HGNC Symbol: PDGFRB

Synonyms: PDGFR1, PDGFR, JTK12

Product No.: 0099-0000-1

Lot: 013

Description: Human PDGFR-beta, C-terminal fragment, amino acids R₅₆₁-L₁₁₀₆ (as in [NCBI/Protein](#) entry NP_002600.1), N-terminal GST-HIS₆ fusion protein with a FactorXa cleavage site, expressed in Sf9 insect cells

Product identity: PDGFR-beta Lot 013, was confirmed as PDGFR-beta by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 88,029 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, 4 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: 0.205 µg/µl

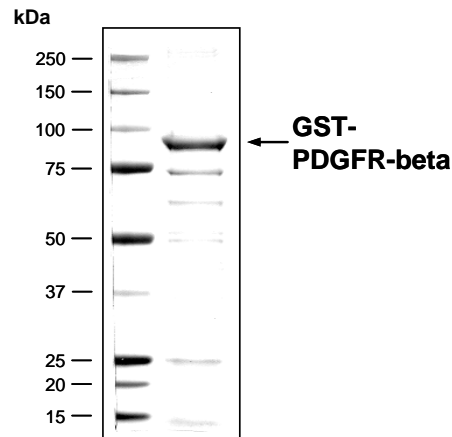
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 46 pmol/µg × min

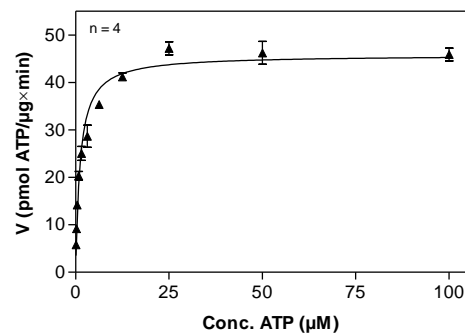
ATP-K_M: 1.2 µM

PDGFR-beta Lot 013: Coomassie stain



2.0 µg GST-PDGFR-beta

PDGFR-beta Lot 013: 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: Poly(Ala, Glu, Lys, Tyr)_{6:2:5:1}, 40 µg/ml
 - Kinase: 2 µg/ml
- Filter binding assay
 - MSFC membrane (Millipore)

Additional assay technology:

PDGFR-beta Lot 013 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

ProQinase™ PDGFR-beta

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GST-PDGFR-beta 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	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	LIEGRGIPGN	SRYEIRWKVI	240
241	ESVSSDGHEY	IYVDPMQLPY	DSTWELPRDQ	LVLGRTLGS	AFGQVVEATA	HGLSHSQATM	300
301	KVAVKMLKST	ARSSEKQALM	SELKIMSHLG	PHLNVNLLG	ACTKGGPIYI	ITEYCRYGDL	360
361	VDYLHRNKHT	FLQHHSDKRR	PPSAELYSNA	LPVGLPLPSH	VSLTGESDGG	YMDMSKDESV	420
421	DYVPM LDMKG	DVKYADIESS	NYMAPYDNYV	PSAPERTCRA	TLINESPVLS	YMDLVGFSYQ	480
481	VANGMEFLAS	KNCVHRDLAA	RNVLICEGKL	VKICDFGLAR	DIMRDSNYIS	KGSTFLPLKW	540
541	MAPESIFNSL	YTTLSDVWSF	GILLWEIFTL	GGTPYPELPM	NEQFYNAIKR	GYRMAQPAHA	600
601	SDEIYEIMQR	CWEEKFEIRP	PFSQLVLLLE	RLGEGYKKK	YQQVDEEFLR	SDHPAILRSQ	660
661	ARLPGFHGLR	PLDTSSVLY	TAVQPNEGDN	DYIIPLPDPK	PEVADEGPLE	GSPSLASSTL	720
721	NEVNTSSTIS	DSPLLEPQDE	PEPELEQLQ	VEPELEQLQ	PDSGCPV PRA	EAEDSFL	780

1-218: GST **Red**: HIS6-tag **Pink**: Factor Xa cleavage site **blue**: PDGFR-beta fragment **boxed**: variation from RefSeq

PDGFR-beta wt ¹ Amino Acid Sequence							
1	MRLPGAMPAL	ALKGELLLL	LLLLLEPQIS	QGLVVTPPGP	ELVLNVSSTF	VLTCSGSAPV	60
61	VWERM SQEPP	QEMAKAQDGT	FSSVLTLTNL	TGLDTGEYFC	THNDSRGLET	DERKRLYIFV	120
121	PDPTVGFLPN	DAELFIFL	EITEITIPCR	VTDPQLVVT	HEKKG DVALP	VPYDHRGFS	180
181	GIFEDRSYIC	KTTIGDREVD	SDAYVYRLQ	VSSINVSUNA	VQTVVRQGEN	ITLMCIVIGN	240
241	EVVNF EWYTP	RKESGR LVEP	VTD FLLDMPY	HIRSILHIPS	AELEDSGYT	CNVTESVNDH	300
301	QDEKAINITV	VESGYVRLG	EVGTLQFAEL	HRSRTLQVVF	EAYPPPTVLW	FKDNRTL GDS	360
361	SAGEIALSTR	NVSETRYVSE	LTLVRVKVAE	AGHYTMRAF	EDA EVQLSFQ	LQINVPVRL	420
421	ELSE SHPDSG	EQT VRCRGRG	MPQPNIIWSA	CRDLKRCPRE	LPPTLLGNSS	EEESQLETNV	480
481	TYWEEEQEFE	VVSTLR LQHV	DRPLSVRCTL	RNAVGGDTQE	VIVVPHSLPF	KVVVISAILA	540
541	LVVLTIIISLI	ILIMLWQKKP	RYEIRWKVIE	SVSSDGHEYI	YVDPMQLPYD	STWELPRDQL	600
601	VLGRTLGS GA	FGQVVEATAH	GLSHSQATMK	VAVKMLKSTA	RSSEKQALMS	ELKIMSHLGP	660
661	HLNVNLLGA	CTKGGPIYII	TEYCRYGDLV	DYLHRNKHTF	LQHHSDKRRP	PSAELYSNAL	720
721	PVGLPLPSHV	SLTGESDGGY	MMSKDESVD	YVPM LDMGD	VKYADIESSN	YMAPYDNYVP	780
781	SAPERTCRAT	LINESPVLSY	MDLVGFSYQV	ANGMEFLASK	NCVHRDLAAR	NVLICEGKLV	840
841	KICDFGLARD	IMRDSNYISK	GSTFLPLKWM	APESIFNSLY	TTLSDVWSFG	ILLWEIFTLG	900
901	GTPYPELPMN	EQFYNAIKRG	YRMAQPAHAS	DEIYEIMQKC	WEEKFEIRPP	FSQLVLLLER	960
961	LLGEGYKKKY	QQVDEEFLRS	DHPAILRSQA	RLPGFHGLRS	PLDTSSVLYT	AVQPNEGDND	1020
1021	YIIPLPDPKP	EVADEGPLEG	SPSLASSTLN	EVNTSSTISC	DSPLEPQDEP	EPEPQLELQV	1080
1081	EPEPELEQLP	DSGCPAPRAE	AEDSFL				1140

blue: PDGFR-beta sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹NCBI/Protein accession number NP_002600.1

A1096V: SNP variation see NCBI/dbSNP ID: rs114435947