

## PDGFR-alpha D842V

platelet derived growth factor receptor alpha

Recombinant Human Active Protein Kinase

HGNC Symbol: PDGFRA

Synonyms: PDGFR2, CD140a, GAS9

Product No.: 0761-0000-1

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 D842V mutation, N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** PDGFR-alpha D842V Lot 002, was confirmed as PDGFR-alpha D842V by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW<sub>Fusion Protein</sub>:** 89,877 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:** 0.064 µg/µl

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

**Biochemical Parameters:**

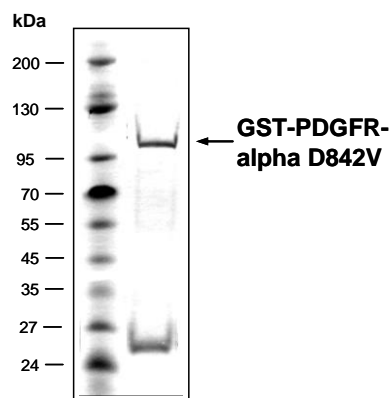
Specific kinase activity (P<sub>i</sub> transfer): 6 pmol/µg × min

ATP-K<sub>M</sub>: 1.7 µM

**Additional assay technology:**

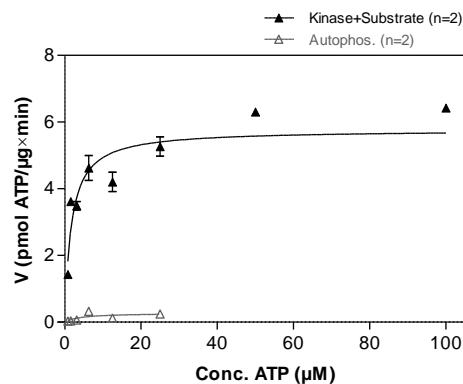
PDGFR-alpha D842V Lot 002 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

**PDGFR-alpha D842V Lot 002:  
Coomassie stain**



2.0 µg GST-PDGFR-alpha D842V

**PDGFR-alpha D842V Lot 002:  
Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP**



• 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

Kinase: 1 µg/ml

• Filter binding assay

MSPH membrane (Millipore)

## PDGFR-alpha D842V

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GST-PDGFR-alpha D842V 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	WPLQGWAQTF	GGGDHPPKSD	PMG <b>HHHHHG</b>	RDS <b>LEVLFGQ</b>	240
241	<b>PLAMGQKPRY</b>	<b>EIRWRVIESI</b>	<b>SPDGHEIYIV</b>	<b>DPMQLPYDSR</b>	<b>WEFPRDGLVL</b>	<b>GRVLGSGAFG</b>	300
301	<b>KVVEGTAYGL</b>	<b>SRSQPMKVA</b>	<b>VKMLKPTARS</b>	<b>SEKQALMSEL</b>	<b>KIMTHLGPLH</b>	<b>NIVNLLGACT</b>	360
361	<b>KSGPIYIITE</b>	<b>YCFYGLVNY</b>	<b>LHKNRDSFLS</b>	<b>HHPEKPKKEL</b>	<b>DIFGLNPADE</b>	<b>STRSYVILSF</b>	420
421	<b>ENNGDYMDMK</b>	<b>QADTTQYVPM</b>	<b>LERKEVSKYS</b>	<b>DIQRSLYDRP</b>	<b>ASYKKKSMLE</b>	<b>SEVKNLLSDD</b>	480
481	<b>NSEGLTLLDL</b>	<b>LSFTYQVARG</b>	<b>MEFLASKNCV</b>	<b>HRDLAARNVL</b>	<b>LAQ GKIVKIC</b>	<b>DFGLAR<b>V</b>IMH</b>	540
541	<b>DSNYVSKGST</b>	<b>FLPVKWMAP</b>	<b>SIFDONLYTTL</b>	<b>SDVWSYGILL</b>	<b>WEIFSLGGTP</b>	<b>YPGMMVDSTF</b>	600
600	<b>YNKIKSGYRM</b>	<b>AKPDHATSEV</b>	<b>YEIMVKCWN</b>	<b>EPEKRPSFYH</b>	<b>LSEIVENLLP</b>	<b>GQYKKSYEKI</b>	660
661	<b>HLDFLKSDHP</b>	<b>AVARMRVDSD</b>	<b>NAYIGVTYKN</b>	<b>EEDKLDWEG</b>	<b>GLDEQRLSAD</b>	<b>SGYIIPLPDI</b>	720
721	<b>DPVPEEEDLG</b>	<b>KRNRHSSQTS</b>	<b>EESAIETGSS</b>	<b>SSTFIKREDE</b>	<b>TIEDIDMDD</b>	<b>IGIDSSDLVE</b>	780
781	<b>DSFL</b>						840

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: PDGFR-alpha fragment **boxed**: D842V mutation

PDGFR-alpha wt <sup>1</sup> Amino Acid Sequence							
1	MGTSHPAFLV	LGCLLTGLSL	ILCQLSLPSI	LPNENEKVQ	LNSSFSLRCF	GESEVSWQYP	60
61	MSEEESSDVE	IRNEENNSGL	FVTVLEVSSA	SAAHTGLYTC	YYNHTQTEEN	ELEGRHIYY	120
121	VPDPDVAFVP	LGMTDYLIV	EDDDSAIIPC	RTTDPETPVT	LHNSEGVVPA	SYDSRQGFNG	180
181	TFTVGPYICE	ATVKGKKFQT	IPFNVYALKA	TSELDLEMEA	LKTVYKSGET	IVVTCAVFNN	240
241	EVVDLQWTYP	GEVKGKGITM	LEEIKVPSIK	LVYTLTVPEA	TVKDSGDYEC	AARQATREVK	300
301	EMKKVTISVH	EKGFIIEIKPT	FSQLEAVNLH	EVKHFVVEVR	AYPPPRISWL	KNNLTLIENL	360
361	TEITTDVEKI	QEIRYRSKLL	LIRAKEEDSG	HYTIVAQNE	AVKSYTFELL	TQVPSSILDL	420
421	VDDHHGSTGG	QTVRCTAEGT	PLPDIEWMIC	KDIKKCNET	SWTILANNVS	NIITEIHSRD	480
481	RSTVEGRVTF	AKVEETIAVR	CLAKNLLGAE	NRELKLVAPT	LRSELTVA	VLVLLVIVII	540
541	SLIVLVVIWK	<b>QKPRYEIRWR</b>	<b>VIESISPDGH</b>	<b>EYIYVDPMQL</b>	<b>PYDSRWEFPR</b>	<b>DGLVLGRVLG</b>	600
600	<b>SGAFGKVVEG</b>	<b>TAYGLSRSQP</b>	<b>VMKVAVKMLK</b>	<b>PTARSSEKQA</b>	<b>LMSELKIMTH</b>	<b>LGPLNIVNL</b>	660
661	<b>LGACTKSGPI</b>	<b>YIITEYCFYG</b>	<b>DLVNYLHKNR</b>	<b>DSFLSHHPEK</b>	<b>PKKELDIFGL</b>	<b>NPADESTRSY</b>	720
721	<b>VILSFENNGD</b>	<b>YMDMKQADTT</b>	<b>QYVPMLEKE</b>	<b>VSKYSDIQRS</b>	<b>LYDRPASYYK</b>	<b>KSMLDSEVKN</b>	780
781	<b>LLSDDNSEGL</b>	<b>TLLDLLSFTY</b>	<b>QVARGMEFLA</b>	<b>SKNCVHRDLA</b>	<b>ARNVLLAQGK</b>	<b>IVKICDFGLA</b>	840
841	<b>RDIMHDSNYV</b>	<b>SKGSTFLPVK</b>	<b>WMAPESEIFDN</b>	<b>LYTTLSDVWS</b>	<b>YGILLWEIFS</b>	<b>LGSTPYPGMM</b>	900
901	<b>VDSTFYNKIK</b>	<b>SGYRMAKPDH</b>	<b>ATSEVEYIMV</b>	<b>KCWNSEPEKR</b>	<b>PSFYHLSEIV</b>	<b>ENLLPGQYK</b>	960
961	<b>SYEKIHLDFL</b>	<b>KSDHPAVARM</b>	<b>RVDSNAYIG</b>	<b>VTYKNEEDKL</b>	<b>KDWEGLDEQ</b>	<b>RLSADSGYII</b>	1020
1021	<b>PLPDIDPVPE</b>	<b>EEDLGKRNH</b>	<b>SSQTSEESAI</b>	<b>ETGSSSSTFI</b>	<b>KREDETIEDI</b>	<b>DMDDIGIDS</b>	1080
1081	<b>SDLVEDSFL</b>						1140

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

<sup>1</sup>[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein) accession number NP\_006197.1

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