

## PIK3CG

phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma

Recombinant Human Active Lipid Kinase

HGNC Symbol: PIK3CG

**Synonyms:** p120-PI3K, PI3CG, PI3K, PI3K-gamma, PIK3

**Lipid Kinase Family:** PI3K Class I

(according to: Phylogenomics of phosphoinositide lipid kinases: perspectives on the evolution of second messenger signaling and drug discovery: James R Brown & Kurt R Auger; BMC Evolutionary Biology 11, 4-14 (2011))

**Product No.:** 1163-0000-1

**Lot:** 002

**Description:** Human PIK3CG, full length, amino acids M<sub>1</sub>-A<sub>1102</sub> (as in [NCBI/Protein](#) entry NP\_002640.2), N-terminal HIS<sub>6</sub> fusion protein with a Thrombin and TEV cleavage site, expressed in Sf9 insect cells

**Product identity:** PIK3CG Lot 002, was confirmed as PIK3CG by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW<sub>Fusion Protein</sub>:** 132,406 Da

**Expression host:** Sf9 insect cells

**Purification:** Immobilized Metal 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, 20 % glycerol

**Storage temperature:** -80°C

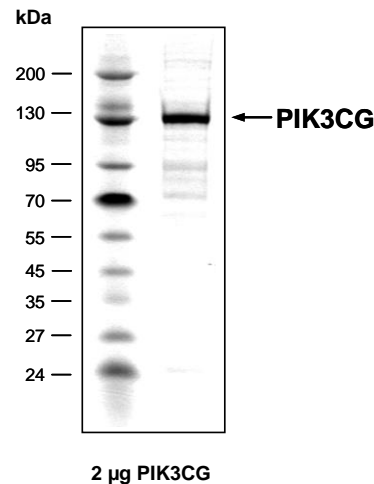
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

**Protein concentration:** 0.577 µg/µl  
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

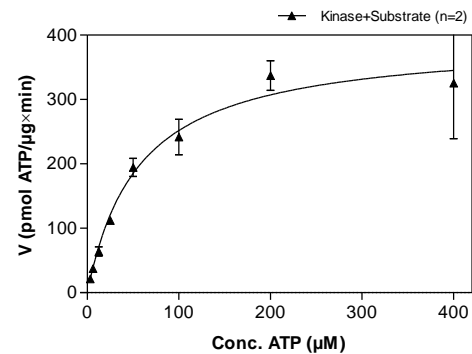
**Biochemical Parameters:**

Specific kinase activity (P<sub>i</sub> transfer): 394 pmol/µg x min  
ATP-K<sub>M</sub>: 56 µM

**PIK3CG Lot 002:**  
Coomassie stain



**PIK3CG 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:
  - 50 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 1 mM EGTA
  - 100 mM NaCl
  - 0,03% CHAPS
  - 2 mM DTT
  - ATP: variable concentration
  - 1 % (v/v) DMSO
  - Substrate: PIP<sub>2</sub>: 50 µM / PS: 950 µM
  - PIP<sub>2</sub>: 08:0 PI(4,5)P<sub>2</sub> (1,2-Dioctanoyl-sn-Glycero-3-(Phosphoinositol-4,5-Bisphosphate))
  - PS: 1-Palmitoyl-2-Oleoyl-sn-Glycero-3-[Phospho-L-Serine])
- PIK3CG: 1 µg/ml
- Assay technology: ADP-Glo (Promega)

This product was manufactured at ProQinase in Freiburg, Germany, and is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.

# PIK3CG

Product No.: 1163-0000-1

HIS-PIK3CG Recombinant Fusion Protein Amino Acid Sequence												
1	MSPIDPMG	HH	HHH	GRRRAS	VAAGI	LVPRG	SPGLDGIYAR	TENLYFQ	GAM	GARGR	MELEN	60
61	YKQPVV	LRED	NCRRRRR	MKP	RSAAAS	LSM	ELIPIEFVLP	TSQRKCK	SPE	TALLH	VAGHG	120
121	NVEQMK	QVW	LRALETS	VAA	DFYHRL	GPHH	FLLLYQKK	GQ	WYEIYDK	YQV	VQTLDC	180
181	KATHRSP	QI	HLVQRH	PPSE	ESQAFQ	RQLT	ALIGYD	VTDV	SNVHDE	LEF	TRRGLV	240
241	AEVASR	DPKL	YAMHPW	VTSK	PLPEYL	WKKI	ANNCIF	IVIH	RSTTSQ	TIKV	SPDDTP	300
301	QSFFT	KMAK	KSLMDI	PESQ	SEQDFV	LRV	GRDEYL	VGET	PIKNFQ	WVRH	CLKNGE	360
361	VLDTPP	DPAL	DEVKKE	EWPL	VDDCTG	VGTGY	HEQLTI	HGKD	HESVFT	TVSLW	DCDRKF	420
421	RGIDIP	VLP	NTDLT	VFVEA	NIQHGO	QVLC	QRRTSP	KPFT	EEVLWN	VWLE	FSIKIK	480
481	GALLNL	QIYC	GKAPAL	SSKA	SAESPS	SESK	GKVQLL	YYVN	LLLIDH	RFL	RRGEYV	540
541	QISGKG	EDQG	SFNADK	LTS	TNPKEN	SMS	ISILLD	NYCH	PIALPK	HQPT	PDPEGD	600
600	EMPNQL	RKQL	EAIATD	PLN	PLTAED	KELL	WHFRY	ESLKH	PKAYPK	LFS	VKWGOQ	660
661	KTYQLL	ARR	VWDQS	ALDVG	LTMQLL	CNF	SDENV	RAIAV	QKLES	LEDD	VLHYLL	720
721	AVKFEP	YHDS	ALARFL	LKRG	LRNKRI	GHFL	FWFLR	SEIAQ	SRHYQ	QRFV	ILEAYL	780
781	TAMLHD	FTQ	VQVIEM	LQKV	TLDIKS	LSAE	KYDVSS	QVIS	QLKQK	LENLQ	NSQLPE	840
841	PYDPGL	KAGA	LAIEK	CKVMA	SKKKPL	WLEF	KCADPT	ALSN	ETIGII	FKHG	DDLQD	900
901	QILRIM	ESI	W	ETESLD	LCLL	PYGC	ISTGDK	IGMIEI	VKDA	TTIAKI	QOST	960
961	VLNHWL	KEKS	PTEEFQ	AAV	ERFVYS	CAGY	CVATFV	LGIG	DRHND	NIMIT	ETGNLF	1020
1021	GHILNF	YSK	LGINK	ERV	PF	VLTPDF	L	FVM	GTSGK	TS	PH	1080
1081	LLIILF	S	MML	MTGMP	QLTSK	EDIEY	IRDAL	TVGKNE	EDAK	KYFLD	QIEVC	1140
1141	WFLHLV	LG	IK	QGEK	SA							1200

Red: HIS6-tag Pink: Thrombin cleavage site Green: TEV cleavage site blue: PIK3CG

PIK3CG wt <sup>1</sup> Amino Acid Sequence												
1	MELENY	KQPV	VLREDN	NCRRR	RRMKPR	SAAA	SLSSMELIPI	EFVLPTS	QQRK	CKSPET	ALLH	60
61	VAGHGN	VEQM	KAQVWL	RALE	TSVAAD	FYHR	LGP	HHFL	LLLY	QKKGQ	WYEIY	120
121	CLRYWK	KATHR	SPGQI	HLVQR	HPPSE	EQAF	QRQLT	ALIGY	DVTDV	SNVH	DELEF	180
181	VTPRMA	EVAS	RDPKLY	AMHP	WVTSK	PLPEY	LWKKI	ANNCI	FIVIH	RSTTS	QTIKVS	240
241	PGAILQ	SFFT	KMAKK	SLMD	IPESQ	SEQDF	VLRVC	GRDEY	LVGET	PIKNF	QWVRH	300
301	EEIHV	VLDTP	PDPAL	DEVK	EWPLV	D	GVTGY	HEQLT	IHGKD	HESV	TVSLW	360
361	FRVKIR	GIDI	PVLPR	NTDLT	VFVEA	NIQH	G	QVLC	QRRTS	PKPFT	EEVLW	420
421	KDLPK	GALLN	LQIY	CGKAPA	LSSK	ASAESP	SSESK	GKVQL	LYYVN	LLLID	HRFLL	480
481	VLHMV	QISGK	GEDQ	SFNAD	KLTSAT	N	ENSMS	ISILL	DNYCH	PIALP	KHQPT	540
541	DRVRA	EMP	NQ	LRKQ	LEAIIA	TDPLN	PLTAE	DKELL	WHFRY	ESLKH	PKAYP	600
600	QEI	VAKTY	QL	LARREV	WDQS	ALDV	GLTM	QL	LDCNF	SDENV	RAIAV	660
661	LQLVQ	AVKFE	PYHDS	SALARF	LLKRG	LRNKR	IGHFL	FWFLR	SEIAQ	SRHYQ	QRFVIL	720
721	LRGCG	TAM	LH	DFTQ	QVQVIE	MLQK	V	TLDIK	SLSAE	KYDVS	SQVIS	780
781	ESFRV	PYDPG	LKAGAL	AIEK	CKVM	SKK	KLP	LWLEF	KCADP	TALS	NETIGI	840
841	DMLIL	QILRI	MESI	WETESL	DLCLL	PYGCI	STGDK	IGMIE	IVKD	ATTIAK	IQOST	900
901	AFKDE	VLNHW	LKEK	SPTEEK	FQAA	VERFVY	SCAGY	CVATF	VLGIG	DRHND	NIMITET	960
961	FHIDF	GHILG	NYKS	F	LGINK	ERV	PFV	LTPD	FLFV	MGTSGK	KTS	1020
1021	RHHTN	LLIIL	F	S	MML	MTGMP	QLTSK	EDIEY	IRDAL	TVGKN	EEDAK	1080
1081	TVQFN	WFLHL	LG	IK	QGEK	SA						1140

blue: PIK3CG sequence expressed in recombinant protein

<sup>1</sup>NCBI/Protein accession number NP\_002640.2

This product was manufactured at ProQinase in Freiburg, Germany, and is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.