Human Kinase Open Reading Frame Collection

Description:
The Center for Cancer Systems Biology (Dana Farber Cancer Institute)-Broad Institute of Harvard and MIT Human Kinase ORF collection from Addgene consists of 559 distinct human kinases and kinase-related protein ORFs in pDONR-223 Gateway® Entry vectors. All clones are clonal isolates and have been end-read sequenced to confirm identity.

Kinase ORFs were assembled from a number of sources; 56% were isolated as single cloned isolates from the ORFeome 5.1 collection (horfdb.dfci.harvard.edu); 31% were cloned from normal human tissue RNA (Ambion) by reverse transcription and subsequent PCR amplification adding Gateway® sequences; 11% were cloned into Entry vectors from templates provided by the Harvard Institute of Proteomics (HIP); 2% additional kinases were cloned into Entry vectors from templates obtained from collaborating laboratories. All ORFs are open (stop codons removed) except for 5 (MST1R, PTK7, JAK3, AXL, TIE1) which are closed (have stop codons). Detailed information can be found at:

www.addgene.org/human_kinases

Handling and Storage: Store glycerol stocks at -80°C and minimize freeze-thaw cycles. To access a plasmid, keep the plate on dry ice to prevent thawing. Using a sterile pipette tip, puncture the seal above an individual well and spread a portion of the glycerol stock onto an agar plate. To patch the hole, use sterile tape or a portion of a fresh aluminum seal.

Note: These plasmid constructs are being distributed to non-profit institutions for the purpose of basic research.

Please contact Addgene at help@addgene.org with any questions.

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Plate 1

	1	2	3	4	5	6	7	8	9	10	11	12
A	CAMK2B	NEK3	ACVR1	NME1-NME2	CRKL	CSNK1A1	CCL4	STK33	C1orf57	CSNK2B	PRKAB1	LOC389599
B	CAMKK1	DYRK4	CIB1	GK2	PRKCI	FLJ25006	CDK3	PION	STK19	GRK6	LOC442075	LOC390877
C	AURKC	FLJ23356	PRKAR1B	FLJ40852	SGK2	TESK1	GUK1	DCK	CDKL4	PRKX	PANK3	PHKG1
D	CIB4	PKDCC	NUAK2	CDKL1	DAPK2	LOC649288	NME2	ITGB1BP3	LOC652799	NEK7	SLAMF6	TSSK2
E	RAF1	BMP2KL	CSNK1G3	ACVR2B	GRK7	PAK6	MARK2	SNRK	MAP2K1	PLXNB2	CAMK2A	CAMK2G
F	BRD3	MPP7	IRAK2	PRKG1	PFKFB1	IPPK	MPP6	MPP4	NEK8	PANK4	MAPK8	CDKL2
G	CAMKK2	BMP2K	PRKCQ	LIMK2	MAPKAPK2	PGK1	CHKA	CDC2L6	ADRBK1	MPP3	BRSK2	UHMK1
H	NEK5	PRKG2	DAPK3	NEK10	TGFBR1	PAK3	SRPK3	MAPK4	RIPK1	KSR	MAPK6	DGKA

Plate 2

	1	2	3	4	5	6	7	8	9	10	11	12
A	SNF1LK	GTF2H1	RKHD3	MPP5	GNE	IHPK3	PIP5K2C	DLG3	PRKR	AMHR2	MAP3K2	BRD4
B	MAST2	PIK3C3	SCYL2	NEK9	RPS6KC1	PIK4CB	EIF2AK4	CKS2	RPS6KL1	PRPF4B	PIK3CA	HIPK3
C	ALDH18A1	TNNI3K	CASK	PHKA1	GSG2	MAP3K11	ULK2	DKFZp761P0423	TRPM7	DGKB	TGFBR3	NPR2
D	DAPK1	HIPK2	CARD11	PIK3C2G	MAP4K1	LATS2	MAP4K4	DGKK	PIK3R4	LRGUK	PRKD2	ERN1
E	KIAA2002	ALPK2	BRAF	PRKACA	VRK1	NEK4	MAPK1	MAP3K15	PRKD1	KSR2	CHEK2	PI4KII
F	PINK1	DLG1	PRKY	PI4K2B	DKFZp434B1231	MAPK3	GSK3A	LIMK1	AAK1	LOC648152	PSKH1	MASTL
G	PCTK2	MAP3K5	PLXNA3	TPR	LRRK2	LRPPRC	MINK1	MAGI1	MYO3B	CDC42BPG	PHKA2	RPS6KA3
H	RIPK2	DGKG	RPS6KA2	MKNK1	AURKA	RPS6KB2	VRK2	RIOK2	IKBKE	RIOK3	OXSR1	PIP5K1B

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Plate 3

	1	2	3	4	5	6	7	8	9	10	11	12
A	MAP3K8	AKT3	RPS6KA6	PIK4CA	PIK3CB	PAK1	CAMK1	LOC340371	LOC91807	MORN2	ULK4	PRKAG3
B	PRKCA	PRKCE	CCL2	TSSK3	GK5	MAP2K2	PDK3	FLJ10986	IHPK1	NUP62	FASTKD5	RP6-213H19.1
C	NME6	DTYMK	AK3L1	STK16	SH3BP5L	ACVR1B	NRBP	COL4A3BP	PAK7	ASCIZ	PNCK	NME1
D	NME3	AK1	TBK1	PDK4	AGK	SH3BP5	PRKD3	PAPSS2	SRPK1	PANK2	NME4	DCAKD
E	KHK	PIM2	PRPS1	TRIB2	CD2	PDGFRL	KIAA0999	HIPK1	MAP3K6	STK24	MGC42105	BRSK1
F	C9orf98	SGK3	FGFRL1	PI4KAP2	TXNDC3	FASTKD1	DCAMKL2	FASTKD2	HSPB8	TRIM27	PLXNA4B	CABC1
G	MGC16169	MAP4K5	BUB1	HKDC1	SCYL1	ACVR1C	YSK4	SNX16	BMPR1A	ARSG	FXN	FN3K
H	PRPS2	TGFBR2	MAK	PGK2	MAP3K12	IRAK3	CDKL3	TLK2	ALPK1	PIP5KL1	HK2	MAST1

Plate 4

	1	2	3	4	5	6	7	8	9	10	11	12
A	ALS2CR7	LYK5	ETNK1	DYRK3	RP2	MAPKAPK5	BMPR1B	XYLB	PRKCG	RPS6KA4	NLK	SH3BP4
B	MAP4K2	RAGE	ULK3	PRKAB2	NJMU-R1	MAPK10	ADCK1	PTK9	CDK10	GLYCTK	ACVR2A	PAK2
C	MYLK2	MOS	NEK2	TPK1	COASY	PIK3CG	RIPK5	TTK	MAP4K3	LATS1	IPMK	PRKAR2B
D	PFKFB3	BMPR2	WNK1	PRKAA2	PKLR	MPP2	EXOSC10	XRCC6BP1	AK2	TRIB3	CSNK2A1	FN3KRP
E	SCYL3	RBKS	AURKB	BUB1B	FUK	CLK2	RPS6KB1	VRK3	CDK6	PRKAG2	DYRK2	PLK2
F	PIM1	MAP3K7	MAP2K1IP1	TESK2	PIK3R1	MAPK15	RFK	CDK5	TWF2	CDK9	NME7	MVK
G	SPHK1	CSNK1G2	CKMT1A	PHKB	SGK	ZAK	PCTK3	ADCK4	FASTK	PAK4	SPHK2	PCK2
H	MARK3	CCRK	PRKAG1	MAPK12	STK32C	STK17B	ADCK2	PXK	PRKCZ	ARAF	RPS6KA1	TAOK3

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Plate 5

	1	2	3	4	5	6	7	8	9	10	11	12
A	EEF2K	TLK1	PFKM	PFKL	HK1	HK3	MAP3K14	NYD-SP25	CALM2	MKNK2	TK1	CSNK1G1
B	PDIK1L	MAPK13	TSSK1	PRKAR1A	CKB	GALK1	PIP5K2A	PHKG2	CKMT2	NADK	GALK2	IRAK4
C	GCK	MPP1	AKT1	CLK3	PCTK1	PIP5K1A	CAMKV	PKM2	RPS6KA5	RIOK1	HIPK4	DYRK1B
D	ITPKB	AK7	PRKCB1	PRKCH	SRPK2	CKS1B	CALM1	CALM3	STK32A	PMVK	NME5	AK3
E	TP53RK	TSSK6	CDC2	CDK2	CDK4	CDK5R1	PDXK	NEK6	PBK	MAP2K6	CSNK1A1L	NAGK
F	CDK7	PRKACB	PRKACG	PRKAR2A	MAPKAPK3	CAMK1D	ETNK2	ADRBK2	BCKDK	STK32B	CSNK1D	CSNK1E
G	MAP2K7	IHPK2	STK25	PDPK1	STK11	STK40	PDK1	MAP2K5	PIP5K3	ILK	PIK3R3	ADPGK
H	STK38L	STK38	CAMK4	CAMK1G	CAMK2D	UCK2	NEK11	CLK1	STK3	PIK3R5	DGUOK	MAPK14

Plate 6

	1	2	3	4	5	6	7	8	9	10	11	12
A	ERBB3	ERBB4	FES	FGR	FRK	HCK	CKM	ITK	MATK	NTRK2	PKMYT1	TEC
B	TXK	ZAP70	ERBB2	MET	LCK	NTRK1	PDGFRA	PDGFRB	TNK1	FLT3	EPHB4	DDR2
C	PTK2B	PTK6	MERTK	NTRK3	PTK2	STYK1	FGFR2	LYN	RET	SYK	TYK2	ABL2
D	DDR1	EPHA3	FLT1	PLK1	LMTK2	JAK2	TYRO3	ALK	BTK	EPHA4	EPHA6	FER
E	FGFR1	FLT4	INSRR	KDR	EPHA2	ROR2	CSF1R	EPHA1	EPHB1	EPHB6	JAK1	FGFR3
F	SRC	EGFR	BMX	FYN	YES1	ABL1	BLK	CSK	MST1R	PTK7	JAK3	AXL
G	TIE1	PAPSS1	PFKP	DAK	PRKAA1	GK	ACVRL1					
H												

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