

# Cisbio KinEASE

## Validated kinases and assay conditions

The general assay conditions used for the validation of the kinases are: Kinase 10 ng/well, ATP 100 µM, Substrate 1µM and the optimized kinase buffer with or without SEB (Supplement Enzymatic Buffer) at 50 nM. Biotin/Streptavidin ratio is 8/1. We recommend for each enzyme to perform a step by step optimization as described in the package insert.

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
ABL1		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
ABL2	Arg	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
AKT1	PKB α	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
AKT2	PKB β	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
AKT3	PKB γ	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
ALK		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
AMPK α2/β1/γ1	PRKA A2/B1/G1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 50 µM AMP
AMPK α2/β2/γ1	PRKA A2/B2/G1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 50 µM AMP
Arg	ABL2	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
ARK5		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
ASK1		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
AURKA	Aurora A, STK6	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
AURKB	Aurora B	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
Aurora A	AURKA, STK6	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
Aurora B	AURKB	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
Aurora C		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
AXL		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
BLK		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
BMX		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
BRK	PTK6	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
BrSK1	SAD1	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
BrSK2		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
BTK		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
c-Kit	KIT	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
CAMK1	CaMK1 α	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 µM CaCl <sub>2</sub> , 1 µM Calmodulin
CaMK1 α	CAMK1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 µM CaCl <sub>2</sub> , 1 µM Calmodulin
CaMK2 α		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 µM CaCl <sub>2</sub> , 1 µM Calmodulin
CaMK2 β	CAMK2B	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 µM CaCl <sub>2</sub> , 1 µM Calmodulin
CaMK2 δ	CAMK2D	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 µM CaCl <sub>2</sub> , 1 µM Calmodulin

KINEASE

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
CaMK2 $\gamma$	CAMK2G	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
CAMK2B	CaMK2 $\beta$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
CAMK2D	CaMK2 $\delta$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
CAMK2G	CaMK2 $\gamma$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
CaMK4		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
CDC42 BPA	MRCK $\alpha$	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
CDC42 BPB	MRCK $\beta$	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
CGK2	PRKG2	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
CHEK1	CHK1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
CHEK2	CHK2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
CHK1	CHEK1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
CHK2	CHEK2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
CHUK	IKK $\alpha$	STK S3	2 mM MgCl <sub>2</sub> , 1 mM DTT
CLK3		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT, 30 mM NaCl
COT	MAP3K8	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
CSF1R	FMS	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
CSK		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
DAPK1		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
DAPK2		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
DAPK3	ZIPK	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
DCAMKL2		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
DDR2		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
DMPK		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
DRAK1		STK S1	0 mM MgCl <sub>2</sub> , 1 mM DTT
DYRK2		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT, 2 mg/ml Casein
EEF-2K		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M calmodulin
EGFR		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
EPHA1		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHA2		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHA3		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHA4		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHA5		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHA7		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHA8		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHB1		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHB2		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHB3		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
EPHB4		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
ERBB4	HER4	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
FAK	PTK2	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
FER		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
FES	Fps	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
FGFR1		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
FGFR2		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
FGFR3		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
FGFR4		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
FGR		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
FLT1	VEGFR1	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
FLT3		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
FLT4	VEGFR3	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
FMS	CSF1R	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
Fps	FES	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
FRK	PTK5	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
FYN		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
GPRK4	GRK4	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
GRK4	GPRK4	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
GRK5		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT, 2mg/ml Casein
GRK6		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
GSG2	Haspin	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
GSK3 $\alpha$		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
Haspin	GSG2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
HCK		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
HER4	ERBB4	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
HIPK2		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
HIPK3		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
IGF1R		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
IKBKB	IKK $\beta$	STK S3	2 mM MgCl <sub>2</sub> , 1 mM DTT
IKK $\alpha$	CHUK	STK S3	2 mM MgCl <sub>2</sub> , 1 mM DTT
IKK $\beta$	IKBKB	STK S3	2 mM MgCl <sub>2</sub> , 1 mM DTT
INSR	Insulin R	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
INSRR	IRR	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
Insulin R	INSR	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
IRAK4		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
IRR	INSRR	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
ITK		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
JAK1		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
JAK2		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
JAK3		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
KDR	VEGFR2	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
KIT	c-Kit	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
LATS1		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
LCK		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
LKB1		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
LOK		STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
Lyn		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
LYNa		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
MAP3K8	COT	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
MAPKAP-K1 $\alpha$	RSK1, RPS6KA1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
MAPKAP-K1 $\beta$	RSK2, RPS6KA3	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
MAPKAP-K2		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
MAPKAP-K3		STK S1	2 mM MgCl <sub>2</sub> , 1 mM DTT
MAPKAP-K5	PRAK	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
MARK1		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
MARK2	PAR-1B $\alpha$	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
MELK		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
MER	MERTK	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
MERTK	MER	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
MET		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
MINK1		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
MKNK1	MNK1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
MKNK2	MNK2	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
MLCK		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
MNK1	MKNK1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
MNK2	MKNK2	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
MRCK $\alpha$	CDC42 BPA	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
MRCK $\beta$	CDC42 BPB	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
MSK1	RPS6KA5	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
MSK2	RPS6KA4	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
MSSK1	STK23	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
MST1	STK4	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
MST1R	RON	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT , SEB
MST2	STK3	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
MSTIR	RON	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT , SEB
MUSK		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
MYLK	smMLCK	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
NEK11		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
NEK2		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
NEK3		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
NEK6		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
NEK7		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
NLK		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
NTRK1	TRKA	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
NTRK2	TRKB	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
NTRK3	TRKC	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
p70S6K	RPS6KB1	STK S3	2 mM MgCl <sub>2</sub> , 1 mM DTT
PAK2		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PAK3		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PAK4		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PAK5	PAK7	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PAK6		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PAK7	PAK5	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PAR-1B $\alpha$	MARK2	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PASK		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PDGFR $\alpha$	PDGFRA	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PDGFR $\beta$	PDGFRB	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PDGFRA	PDGFR $\alpha$	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PDGFRB	PDGFR $\beta$	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PHK $\gamma$ 1		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
PHK $\gamma$ 2		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PIM1		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PIM2		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKAC $\alpha$	PRKACA	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKAC $\gamma$	PRKACG	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKB $\alpha$	AKT1	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKB $\beta$	AKT2	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKB $\gamma$	AKT3	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKC $\alpha$	PRKCA	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKC $\beta$ 1	PRKCB1	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKC $\beta$ 2	PRKCB2	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKC $\delta$	PRKCD	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKC $\epsilon$	PRKCE	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PKC $\eta$	PRKCH	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PKC $\gamma$	PRKCG	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKC $\iota$	PRKCI	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKC $\mu$		STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PKC $\theta$	PRKCQ	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PKC $\zeta$	PRKCZ	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PKD2	PRKD2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKG1 $\alpha$	PRKG1	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT, 10 $\mu$ M cGMP
PKG1 $\beta$		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT, 10 $\mu$ M cGMP
PKG2	PRKG2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PKN2	PRK2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PLK1		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PLK3		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT, 2mg/ml CaSein
PLK4		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRAK	MAPKAP-K5	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRK2	PKN2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRKA A2/B1/G1	AMPK $\alpha$ 2/ $\beta$ 1/ $\gamma$ 1	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT, 50 $\mu$ M AMP
PRKACA	PKAC $\alpha$	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRKACG	PKAC $\gamma$	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRKCA	PKC $\alpha$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKCB1	PKC $\beta$ 1	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKCB2	PKC $\beta$ 2	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKCD	PKC $\delta$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKCE	PKC $\epsilon$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PRKCG	PKC $\gamma$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKCH	PKC $\eta$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PRKCI	PKC $\iota$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKCQ	PKC $\theta$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
PRKCZ	PKC $\zeta$	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, lipid activator 1X
PRKD2	PKD2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRKG1	PKG1 $\alpha$	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT, 10 $\mu$ M cGMP
PRKG2	PKG2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
PRKX		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
PTK2	FAK	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT, SEB
PTK2B	PYK2	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PTK5	FRK	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PTK6	BRK	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
PYK2	PTK2B	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
RET		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
ROCK1		STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
ROCK2	ROK $\alpha$	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
RON	MST1R	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT , SEB
ROS	ROS1	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
ROS1	ROS	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
RPS6KA1	RSK1, MAPKAP-K1 $\alpha$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
RPS6KA2	RSK3	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
RPS6KA3	RSK2, MAPKAP-K1 $\beta$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
RPS6KA4	MSK2	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
RPS6KA5	MSK1	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
RPS6KA6	RSK4	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
RPS6KB1	p70S6K	STK S3	2 mM MgCl <sub>2</sub> , 1 mM DTT
Rse	TYR03	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
RSK1	RPS6KA1, MAPKAP-K1 $\alpha$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
RSK2	RPS6KA3, MAPKAP-K1 $\beta$	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
RSK3	RPS6KA2	STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
RSK4	RPS6KA6	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
SAD1	BrSK1	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
SGK1		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
SGK2		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
SGK3	SGKL	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
SGKL	SGK3	STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
SIK		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
smMLCK	MYLK	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT, 500 $\mu$ M CaCl <sub>2</sub> , 1 $\mu$ M Calmodulin
Snk		STK S3	10 mM MgCl <sub>2</sub> , 1 mM DTT
SRC		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
STK22B	TSSK2	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
STK22D	TSSK1	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
STK23	MSSK1	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
STK3	MST2	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
STK4	MST1	STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
STK6	Aurora A, AURKA	STK S2	5 mM MgCl <sub>2</sub> , 1 mM DTT
SYK		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> ,1 mM DTT
TBK1		STK S1	5 mM MgCl <sub>2</sub> , 1 mM DTT
TEK	TIE2	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> ,1 mM DTT, SEB
TIE2	TEK	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> ,1 mM DTT, SEB

KINASE	SYNONYM	KINEASE KIT	KINASE ENZYMATIC BUFFER 1X SUPPLEMENTED WITH:
TRKA	NTRK1	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
TRKB	NTRK2	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
TRKC	NTRK3	TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
TSSK1	STK22D	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
TSSK2	STK22B	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT
TYK2		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
TYR03	Rse	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
TYRO3		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
VEGFR1	FLT1	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
VEGFR2	KDR	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT, SEB
VEGFR3	FLT4	TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
WNK2		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
WNK3		STK S3	5 mM MgCl <sub>2</sub> , 1 mM DTT
YES1		TK	5 mM MgCl <sub>2</sub> , 1 mM DTT
ZAP70		TK	5 mM MgCl <sub>2</sub> , 1 mM MnCl <sub>2</sub> , 1 mM DTT
ZIPK	DAPK3	STK S1	10 mM MgCl <sub>2</sub> , 1 mM DTT