Supporting Information file 2

Kinase Chemodiversity from the Arctic: The Breitfussins

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Table of contents

Tables S3: Breitfussin A (**1**), C (**3**) and D (**4**) against 140 kinases	S2
Table S4: Breitfussin C (**3**) assayed at 10 µM against the 468 kinases	S4
Table S5: Diversity profile of breitfussin C (**3**).	S7
Table S6: IC_{50} values of breitfussin C (**3**) against the 88 cell lines	S9
Figures S1: TreeSpot analysis of breitfussin C (**3**) at 5 µM	S10
Figure S2: Curve images for K_d determination of breitfussin C (**3**)	S11
Figure S3: dose-response-time curves for breitfussin C (**3**) against HT-29 and breitfussin D (**4**) against MCF-7	S13

Table S3. Breitfussin A (**1**), C (**3**) and D (**4**) against 140 kinases using a radioactive (^{33}P-ATP) filter-binding assays.

Comp:	**1**	**3**			**4**	
Conc. (µM)	50	50	5	1	5	1
Gini coef.	-	0,432	0,484	0,605	0,529	-
Kinase	Residual activity (%)					
ABL	102	49	64	79	108	87
AMPK (hum)	28	47	66	115	81	113
ASK1	106	26	55	84	76	100
Aurora A	111	62	89	95	105	94
Aurora B	77	6	11	33	26	50
BRK	123	76	75	83	96	106
BRSK1	77	35	42	78	85	94
BRSK2	64	24	34	70	68	87
BTK	105	126	103	116	90	106
CAMK1	94	96	88	106	91	102
CAMKKb	127	90	84	111	82	106
CDK2-Cyclin A	100	96	94	97	100	103
CDK9-Cyclin T1	106	85	99	87	93	83
CHK1	91	82	69	108	77	102
CHK2	94	52	71	95	73	90
CK1γ2	90	18	96	94	83	103
CK1δ	90	25	75	97	92	100
CK2	108	46	97	107	93	104
CLK2	99	24	25	78	61	99
CSK	112	91	83	89	103	107
DAPK1	94	56	59	90	79	101
DDR2	100	75	77	100	104	101
DYRK1A	80	12	24	70	65	85
DYRK2	78	29	45	65	66	95
DYRK3	84	36	49	83	84	101
EF2K	96	61	97	93	98	94
EIF2AK3	103	89	75	97	98	96
EPH-A2	93	84	100	114	106	112
EPH-A4	108	89	97	108	103	112
EPH-B1	117	91	99	112	104	121
EPH-B2	97	115	94	132	110	103
EPH-B3	91	82	106	108	98	115
EPH-B4	88	94	107	110	104	96
ERK1	99	79	105	107	94	105
ERK2	116	121	93	85	100	100
ERK5	103	66	49	68	64	95
ERK8	82	9	17	71	54	109
FGF-R1	103	70	102	95	104	115
GCK	70	7	18	31	25	72
GSK3b	105	55	79	105	81	121

Comp:	**1**	**3**			**4**	
Conc. (µM)	50	50	5	1	5	1
Gini coef.	-	0,432	0,484	0,605	0,529	-
Kinase	Residual activity (%)					
HER4	98	73	80	87	100	90
HIPK1	105	42	44	86	81	97
HIPK2	81	14	30	74	63	101
HIPK3	107	45	61	96	82	98
IGF-1R	78	24	89	78	97	93
IKKb	106	53	52	69	79	89
IKKe	53	33	57	93	66	91
IR	91	23	28	100	67	88
IRAK1	105	67	86	92	104	91
IRAK4	103	69	60	85	67	69
IRR	97	42	53	95	75	81
JAK2	74	15	30	67	77	84
JNK1	109	87	91	98	93	82
JNK2	89	64	53	81	71	104
JNK3	93	44	54	83	75	106
Lck	103	83	86	110	101	104
LKB1	112	81	74	102	82	102
MAP4K3	45	15	39	81	84	76
MAP4K5	66	23	36	59	71	84
MAPKAP-K2	91	107	97	99	91	99
MAPKAP-K3	110	90	89	92	97	100
MARK1	53	39	66	87	75	85
MARK2	58	42	55	84	68	88
MARK3	101	31	43	82	73	93
MARK4	76	56	56	96	60	95
MEKK1	100	101	93	115	90	100
MELK	70	43	55	72	65	98
MINK1	101	24	33	76	25	51
MKK1	72	71	96	97	84	101
MKK2	49	66	103	83	91	90
MKK6	99	107	103	109	98	97
MLK1	74	5	7	26	7	38
MLK3	91	17	7	20	7	33
MNK1	108	96	88	99	86	99
MNK2	93	33	61	100	86	107
MPSK1	103	122	101	80	92	93
MSK1	104	86	84	99	93	93
MST2	66	39	42	77	44	79
MST3	93	69	80	89	84	92
MST4	76	84	100	105	80	101
NEK2a	100	102	86	88	84	88

Table S3. continued

Comp:	**1**	**3**			**4**	
Conc. (µM)	50	50	5	1	5	1
Gini coef.	-	0,432	0,484	0,605	0,529	-
Kinase	Residual activity (%)					
NEK6	121	134	103	117	109	103
NUAK1	115	15	22	46	28	59
OSR1	111	95	95	106	89	107
p38a MAPK	82	33	77	80	96	93
p38b MAPK	97	42	54	103	101	113
p38d MAPK	100	53	54	80	85	102
p38g MAPK	112	97	92	102	90	101
PAK2	88	79	85	82	74	85
PAK4	88	78	87	93	79	103
PAK5	93	89	86	100	89	103
PAK6	115	109	109	100	101	110
PDGFRA	103	48	68	90	92	93
PDK1	93	79	83	94	91	105
PHK	100	68	72	85	69	88
PIM1	54	2	3	6	47	56
PIM2	104	49	63	83	80	106
PIM3	86	11	27	7	65	29
PINK	99	104	116	104	115	98
PKA	91	87	102	102	98	98
PKBa	112	100	96	96	95	98
PKBb	107	88	79	111	79	100
PKCa	111	104	106	110	106	111
PKCz	99	109	97	97	94	91
PKCγ	102	112	98	98	91	116
PKD1	95	17	22	62	38	89
PLK1	105	82	92	111	104	86
PRAK	97	94	84	79	83	89

Comp:	**1**	**3**			**4**	
Conc. (µM)	50	50	5	1	5	1
Gini coef.	-	0,432	0,484	0,605	0,529	-
Kinase	Residual activity (%)					
PRK2	101	63	69	97	84	96
RIPK2	110	10	18	41	64	80
ROCK 2	118	34	34	67	51	70
RSK1	79	57	69	91	79	87
RSK2	87	41	59	95	65	97
S6K1	98	78	66	77	83	89
SGK1	99	60	71	85	83	86
SIK2	48	23	31	67	57	91
SIK3	43	18	19	66	57	91
SmMLCK	104	18	32	52	40	64
Src	77	79	81	77	98	88
SRPK1	100	81	79	97	53	92
STK33	88	55	66	87	66	84
SYK	102	75	58	88	78	86
TAK1	106	7	14	35	25	41
TAO1	98	72	77	88	92	101
TBK1	107	58	62	91	86	88
TESK1	106	54	83	85	83	91
TGFBR1	94	86	91	97	99	96
TIE2	114	86	85	70	97	93
TLK1	101	97	93	91	94	93
TrkA	30	23	45	77	71	71
TSSK1	21	32	72	92	83	90
TTBK1	117	85	99	97	108	103
TTBK2	117	82	86	105	88	113
TTK	110	50	55	83	59	88
ULK1	119	82	95	80	91	105
ULK2	69	52	78	101	96	104
VEG-FR	104	19	25	68	73	89
WNK1	86	95	99	107	100	100
YES1	86	58	44	93	100	94
ZAP70	110	106	113	90	105	80

Table S4. Breitfussin C (**3**) assayed at 10 µM against the 468 kinases in the DiscoverX ScanMax panel.

Kinase	% CTRL
MYLK4	0,25
DRAK2	1,2
JAK1(JH2domain-pseudokinase)	1,4
DRAK1	2,9
TYK2(JH2domain-pseudokinase)	5,3
PIKFYVE	5,9
BIKE	8,2
DCAMKL3	8,4
GAK	8,5
PIM1	9,8
CIT	12
PIK4CB	14
STK35	14
RIOK1	15
FLT3(N841I)	16
STK36	17
IRAK3	19
CSNK1E	20
PIM3	21
YSK4	21
PIK3C2G	23
FLT3(D835Y)	24
RIOK3	25
CSNK1D	26
KIT(L576P)	31
AAK1	32
ANKK1	32
PIP5K1C	32
ZAK	33
FLT3(ITD,D835V)	34
PIP5K1A	38
PIK3CG	39
HIPK1	40
RIOK2	41
FLT3(ITD)	42
KIT(D816V)	42
BUB1	43
FLT3(D835H)	43
PAK2	43
PIK3CA(H1047L)	43
PIK3CA(H1047Y)	43
PRP4	43
CSNK1G3	44
PIK3CA(E545K)	44
RSK1(Kin.Dom.1-N-terminal)	44
BRSK2	46
HIPK2	47
CSNK1G2	48
IKK-beta	48

Kinase	% CTRL
MKNK2	48
AURKB	50
MAP3K4	50
ADCK3	51
SRPK3	51
AURKC	52
CLK1	52
TRKA	52
ADCK4	53
DYRK1B	53
VRK2	53
PIM2	54
AXL	54
CSNK2A2	54
HIPK3	54
LOK	54
TNIK	54
CSNK1A1	55
FLT3(K663Q)	55
SGK	55
MLK3	56
MINK	56
MST2	56
SGK3	56
TTK	56
RIPK2	57
JAK2(JH1domain-catalytic)	57
NEK3	57
PIK3CA(E545A)	57
PIP5K2C	57
TAOK2	57
TSSK1B	57
CHEK2	58
CSNK1A1L	58
HIPK4	58
SYK	58
MLK1	59
CDK8	59
JNK2	59
ABL1-phosphorylated	60
FLT3	60
PIK3CD	60
EGFR(E746-A750del)	61
PIK3CA(E542K)	61
RSK1(Kin.Dom.2-C-terminal)	61
WNK1	61
EGFR(L747-E749del, A750P)	62

Kinase	% CTRL
EGFR(L747-T751del,Sins)	62
FGFR3(G697C)	62
FLT3(ITD,F691L)	62
KIT(V559D)	62
TYK2(JH1domain-catalytic)	62
EGFR(L861Q)	63
PIK3CA(Q546K)	63
PIK3CB	63
SRPK2	63
CLK4	64
RET(V804M)	64
JNK1	65
MLK2	65
NEK1	65
PDGFRA	65
TRKB	65
MYLK	66
PIK3C2B	66
TRKC	66
ERK8	67
ACVR1	67
BRAF	67
EPHA1	67
SNARK	67
ULK3	67
ABL1(E255K)-phosphorylated	68
IRAK1	68
JNK3	68
PIK3CA(I800L)	68
PLK1	68
KIT-autoinhibited	69
MARK1	69
MTOR	69
OSR1	69
TAK1	70
NLK	70
SRMS	70
ULK1	70
ABL1(M351T)-phosphorylated	71
ERBB2	71
IRAK4	71
MEK5	71
NEK7	71
MAP4K2	72
MKNK1	72
RAF1	72
RSK2(Kin.Dom.1-N-terminal)	72

Kinase	% CTRL
SRPK1	72
TYRO3	72
ABL1(H396P)-phosphorylated	73
NEK10	73
ROCK2	73
BRSK1	74
HASPIN	74
JAK3(JH1domain-catalytic)	74
DYRK1A	75
EGFR(S752-I759del)	75
PIK3CA(C420R)	75
S6K1	75
ABL1-nonphosphorylated	76
AMPK-alpha1	76
IKK-alpha	76
MEK1	76
NDR1	76
PRKCD	76
ABL1(Q252H)-phosphorylated	77
EGFR(G719S)	77
KIT(V559D,T670I)	77
NIM1	77
RPS6KA4(Kin.Dom.1-N-terminal)	77
RPS6KA5(Kin.Dom.2-C-terminal)	77
BMPR2	78
CTK	78
EGFR(L747-S752del, P753S)	78
MARK4	78
PIP5K2B	78
ALK(C1156Y)	79
ALK(L1196M)	79
FLT3(R834Q)	79
HPK1	79
LTK	79
MYLK2	79
NDR2	79
ROCK1	79
RSK3(Kin.Dom.2-C-terminal)	79
RSK4(Kin.Dom.1-N-terminal)	79
WNK3	79
AURKA	80
CDKL2	80

Table S4. continued

Kinase	% CTRL
GRK1	80
GRK4	80
IKK-epsilon	80
MLCK	80
SGK2	80
EGFR(L858R,T790M)	81
p38-alpha	81
RSK4(Kin.Dom.2-C-terminal)	81
YANK3	81
EGFR(G719C)	82
EGFR(L858R)	82
KIT(V559D,V654A)	82
MAP4K5	82
PLK4	82
YSK1	82
DCAMKL1	83
EPHB6	83
FAK	83
FES	83
PRKCQ	83
PRKG2	83
RSK3(Kin.Dom.1-N-terminal)	83
TGFBR1	83
ULK2	83
VEGFR2	83
BMPR1B	84
BRK	84
FGFR1	84
GRK3	84
MAP4K4	84
MST1	84
TBK1	84
TESK1	84
VPS34	84
ABL1(F317I)-phosphorylated	85
CASK	85
CDKL1	85
FGFR2	85
FLT3-autoinhibited	85
NEK9	85
STK16	85
TAOK1	85
TIE2	85
BRAF(V600E)	86
BTK	86
KIT(A829P)	86
LRRK2	86
MEK2	86
MRCKA	86
NEK6	86
PKMYT1	86
PRKCI	86
TLK1	86
EIF2AK1	87
INSR	87
MEK4	87
PDGFRB	87
PKN2	87
PLK3	87
RET(V804L)	87
CSF1R	88
GSK3B	88
PFTAIRE2	88
PLK2	88
TSSK3	88
ABL1(F317L)-phosphorylated	89
ACVR2B	89
DYRK2	89
FLT3(D835V)	89
MRCKB	89
p38-beta	89
PRKD3	89
SBK1	89
ABL1(T315I)-phosphorylated	90
CDKL3	90
CSF1R-autoinhibited	90
DAPK1	90
EGFR(T790M)	90
EPHA2	90
MAK	90
MAP3K1	90
CAMKK2	91
FGR	91
FYN	91
GRK7	91
KIT(D816H)	91
MAP4K3	91
MEK6	91
ACVR1B	92
AKT2	92
CAMK1G	92
CAMK2G	92
CDK4-cyclinD1	92
ERBB3	92
ERN1	92
MET(Y1235D)	92
MST3	92
PAK4	92
PKNB(*M.tuberculosis*)	92
SIK2	92
TLK2	92
YES	92
ABL1(Y253F)-phosphorylated	93
AMPK-alpha2	93
ASK2	93
KIT	93
PFCDPK1(*P.falciparum*)	93
TAOK3	93
TNNI3K	93
WEE1	93
ERK4	94
MAP3K3	94
QSK	94
WEE2	94
ABL1(H396P)-nonphosphorylated	95
CDK11	95
DMPK	95
EPHA4	95
EPHB1	95
LCK	95
NIK	95
PRKR	95
RPS6KA4(Kin.Dom.2-C-terminal)	95
YANK1	95
ABL1(Q252H)-nonphosphorylated	96
FRK	96
GRK2	96
MAP3K2	96
MKK7	96
PCTK2	96
PIK3CA(M1043I)	96
PRKCE	96
ROS1	96
SNRK	96
WNK2	96
CDK9	97
CSNK1G1	97
LKB1	97
PIK3CA	97
RSK2(Kin.Dom.2-C-terminal)	97
SLK	97
SRC	97
TNK2	97
ZAP70	97
ALK	98
CAMK1D	98
CDC2L1	98
EGFR	98
GCN2(Kin.Dom.2,S808G)	98
MAPKAPK5	98
MYO3A	98
PRKD2	98
TNK1	98
TXK	98
ACVR2A	99
BMPR1A	99
CAMK2D	99
CLK2	99
EPHB3	99
FGFR3	99
HCK	99
ITK	99
NEK11	99
PAK6	99
PHKG1	99
PKAC-alpha	99
PYK2	99
RIPK4	99
RIPK5	99
ABL1(F317I)-nonphosphorylated	100
ABL1(F317L)-nonphosphorylated	100
ABL1(T315I)-nonphosphorylated	100
ABL2	100
ACVRL1	100
AKT1	100
AKT3	100
ARK5	100
ASK1	100
BLK	100
BMX	100
CAMK1	100
CAMK1B	100
CAMK2A	100
CAMK2B	100
CAMK4	100
CAMKK1	100
CDC2L2	100
CDC2L5	100
CDK2	100

Table S4. continued

Kinase	% CTRL	Kinase	% CTRL	Kinase	% CTRL	Kinase	% CTRL
CDK3	100	ERBB4	100	MAPKAPK2	100		
CDK4	100	ERK1	100	MARK2	100	PFPK5(*P.falciparum*)	100
CDK4-cyclinD3	100	ERK2	100	MARK3	100	PFTK1	100
CDK5	100	ERK3	100	MAST1	100	PHKG2	100
CDK7	100	ERK5	100	MEK3	100	PKAC-beta	100
CDKL5	100	FER	100	MELK	100	PKN1	100
CHEK1	100	FGFR4	100	MERTK	100	PRKCH	100
CLK3	100	FLT1	100	MET	100	PRKD1	100
CSK	100	FLT4	100	MET(M1250T)	100	PRKG1	100
CSNK2A1	100	GSK3A	100	MST1R	100	PRKX	100
DAPK2	100	HUNK	100	MST4	100	RET	100
DAPK3	100	ICK	100	MUSK	100	RET(M918T)	100
DCAMKL2	100	IGF1R	100	MYO3B	100	RIPK1	100
DDR1	100	INSRR	100	NEK2	100	RPS6KA5(Kin.Dom.1-N-terminal)	100
DDR2	100	JAK1(JH1domain-catalytic)	100	NEK4	100		
DLK	100	LATS1	100	NEK5	100	SgK110	100
DMPK2	100	LATS2	100	p38-delta	100	SIK	100
EPHA3	100	LIMK1	100	p38-gamma	100	STK33	100
EPHA5	100	LIMK2	100	PAK1	100	STK39	100
EPHA6	100	LRRK2(G2019S)	100	PAK3	100	TEC	100
EPHA7	100	LYN	100	PAK7	100	TGFBR2	100
EPHA8	100	LZK	100	PCTK1	100	TIE1	100
EPHB2	100	MAP3K15	100	PCTK3	100	TRPM6	100
EPHB4	100			PDPK1	100	WNK4	100
						YANK2	100

Table S5 A and B. Diversity profile of breitfussin C (**3**). (A) Breitfussin C at 10 µM was assayed at Eurofins Cerep Panlabs in a diversity profile panel against various receptors, transporters, and ion channels using enzyme and radioligand binding assays (total number of assays: 98). The assay package is designed for an optimal assessment of the biological diversity and potential adverse activity of the assayed compound.

A: Enzyme and cell based assays

Assay	Inhibition of Control Values (%)
COX1	7
5-lipoxygenase	48
Phosphodiesterase type1B	5
Phosphodiesterase type2A1	28
Phosphodiesterase type3A	10
Phosphodiesterase type4D2	56
Phosphodiesterase type5 (non-selective)	71
Phosphatase 1B (PTP1B)	4
Phosphatase CDC25A	3
Protein Kinase Cα	4
Acetylcholinesterase	1
Catechol- O-methyl transferase	4
GABA transaminase	-4
MAO-A	5
MAO-B (recombinant enzyme	-7
Tyrosine hydroxylase	11
ATPase (Na^+/K^+)	-1
Centromere-associated protein E	-2
Kinesin 5	-2
Histone deacetylase 3	-3
Histone deacetylase 4	-12
Histone deacetylase 6	3
Histone deacetylase 11	19
Sirtuin 1 (inhibitor effect)	-2
Sirtuin 2 (inhibitor effect)	2

Assay	Stimulation Relative to Control (%)
Adenylyl cyclase (activator effect)	0
Guanylyl cyclase (activator effect)	0

Table S5 B. Binding assays

Assay	Inhibition of Control Specific Binding (%)	Assay	Inhibition of Control Specific Binding (%)
Agonist radioligand		Antagonist radioligand	
Adenosine A_2A receptor	85	Adenosine A_1 receptor	98
Adenosine A_3 receptor	84	α-1 Adrenergic receptor (non-selective)	11
β-1 Adrenergic receptor	23		
β -2 Adrenergic receptor	2	α -2 Adrenergic receptor (non-selective)	-6
Angiotensin II receptor type 2	5		
GABA channel BZD (central)	83	Angiotensin II receptor type 1	16
Bradykinin B1	-5	Dopamine receptor D1	41
Bradykinin B2	-22	Dopamine receptor D2S	40
Cannabinoid CB1 receptor	29	Dopamine receptor D3	50
Cannabinoid CB2 receptor	37	Dopamine receptor D4.4	19
Cholecystokinin A	84	NMDA receptor	6
Cholecystokinin B	-12	Histamine H_1 receptor*	2
Corticotropin-releasing hormone receptor 1	-10	Histamine H_2 receptor	-30
Endothelin receptor A	-8	Imidazoline receptor 2	-2
Endothelin receptor B	-4	Muscarine receptor (non-selective)	-9
GABA receptor (non-selective)	21	Neurokinin 3 receptor	9
AMPA receptor	-19	Opioid receptor (non-selective)	-2
Kainate receptor	1	Glutamate channel PCP	-9
Histamine H_3 receptor	-11	Serotonin (5-Hydroxytryptamine) 5-HT1 (non-Selective)	3
Leukotriene B_4 receptor 1	24		
Cysteinyl leukotriene receptor 1	-1	Ca^{2+} channel (L, dihydropyridine site)	43
Melanocortin 4 receptor	1		
Melatonin receptor MT1	53	Ca^{2+} channel (L, diltiazem site) (benzothiazepines)	11
Neurokinin 1 receptor	48		
Neurokinin 2 receptor	94	Ca^{2+} channel (L, verapamil site) (phenylalkylamine)	23
Neuropeptide Y receptor (non-selective)	-5		
Nicotinic receptor neuronal α4β2	-5	KATP channel	3
Nociceptin opioid peptide receptor (ORL1)	12	Voltage-gated potassium channel	17
PPARgamma receptor	74	SK Calcium activated K^+ channel	0
Prostaglandin E_2 receptor 2	95	Na^+ channel (site 2)	45
Prostacyclin I_2 receptor	-9	Cl^- channel (GABA-gated)	10
Purinergic channel P2X receptor	19	Norepinephrine transporter	83
P2Y receptor	55	Dopamine transporter	28
Sigma receptor (non-selective)	-7	GABA transporter	-11
Glucocorticoid receptor	52	Choline transporter (CHT1)	-23
Estrogen receptor (non-selective)	-2	5-HT transporter	2
Progesterone receptor	75		
Androgen receptor	-11		
Thyrotropin-releasing hormone 1 receptor	-22		
Vasopressin receptor 1a	32		
Vasopressin receptor 2	2		

Table S6. IC_{50} values of breitfussin C (**3**) against the 88 cell lines found in the OncoLead panel

Origin	Cell line	IC_{50} [µM]	Z-score	Origin	Cell line	IC_{50} [µM]	Z-score
bladder	T24	3,87	-0.04	hematological	MV4-11	3,21	-0.64
	5637	4,12	-0.05		K-562	3,27	-0.36
	EJ28	5,52	0.54		L-363	3,83	-0.28
	UMUC3	8,67	0.58		HL-60	4,60	0.13
	CLS439	30	-		SU-DHL-10	5,73	0.63
	J82	30	0.66		SU-DHL-6	9,48	1.28
bone	RDES	2,52	-0.94		GRANTA-519	30	-
	MHHES1	3,53	-0.21		KASUMI-1	30	-0.42
	MG63	30	0.69		PBMC	30	-
	SAOS2	30	-		THP-1	30	0.33
	U2OS	30	-	liver	PLCPRF5	1,53	-1.57
brain	SF295	4,65	0.25		HEPG2	3,07	-0.60
	SF268	30	-		SKHEP1	30	0.99
	SKNAS	30	-	lung	NCIH460	2,01	-1.00
	SKNSH	30	-		NCIH358M	5,11	-0.01
	SNB75	30	0.56		NCIH292	5,45	-0.61
	U87MG	30	-		A549	5,97	0.64
breast	MDAMB468	0,34	-3.80		CALU6	6,16	0.67
	MCF7	0,77	-2.49		IMR90	30	0.63
	MT3	0,93	-2.35	muscle	A673	2,23	-0.99
	SKBR3	1,53	-2.66		A204	3,09	-0.63
	JIMT1	4,17	0.06		HS729	30	0.73
	HS578T	5,22	0.42		RD	30	-
	BT20	30	-		TE671	30	-
	MDAMB231	30	0.66	ovary	A2780	3,71	-0.06
	MDAMB436	30	-		EFO21	4,29	-0.85
cervix	C33A	8,28	0.63		IGROV1	11,56	1.52
	CASKI	8,47	0.76		OVCAR3	30	-
	HELA	30	0.48		OVCAR4	30	-
colon	HT29	3,65	-0.13		SKOV3	30	-
	HCT15	4,07	0.06	pancreas	MIAPACA2	5,94	0.64
	COLO678	5,50	0.50		ASPC1	30	-
	HCT116	5,67	0.57		BXPC3	30	0.07
	LOVO	7,17	-0.36		PANC1	30	-0.48
	DLD1	9,33	0.74		PANC1005	30	-
	CACO2	30	-	prostate	22RV1	5,68	0.35
	COLO205	30	-		DU145	30	-
	SW620	30	-		PC3	30	-
kidney	786O	9,98	1.38	skin	MDAMB435	4,11	0.06
	ACHN	10,53	1.47		A375	30	0.78
	HEK293	30	-		A431	30	0.65
placenta	JAR	2,31	-0.77		SKMEL28	30	-
	JEG3	5,64	0.56		SKMEL5	30	-
connective tissue	HT1080	5,76	0.60	uterus	SKLMS1	5,04	0.09

Figure S1. TreeSpot analysis of breitfussin C (**3**) at 5 µM based on Discoverx data

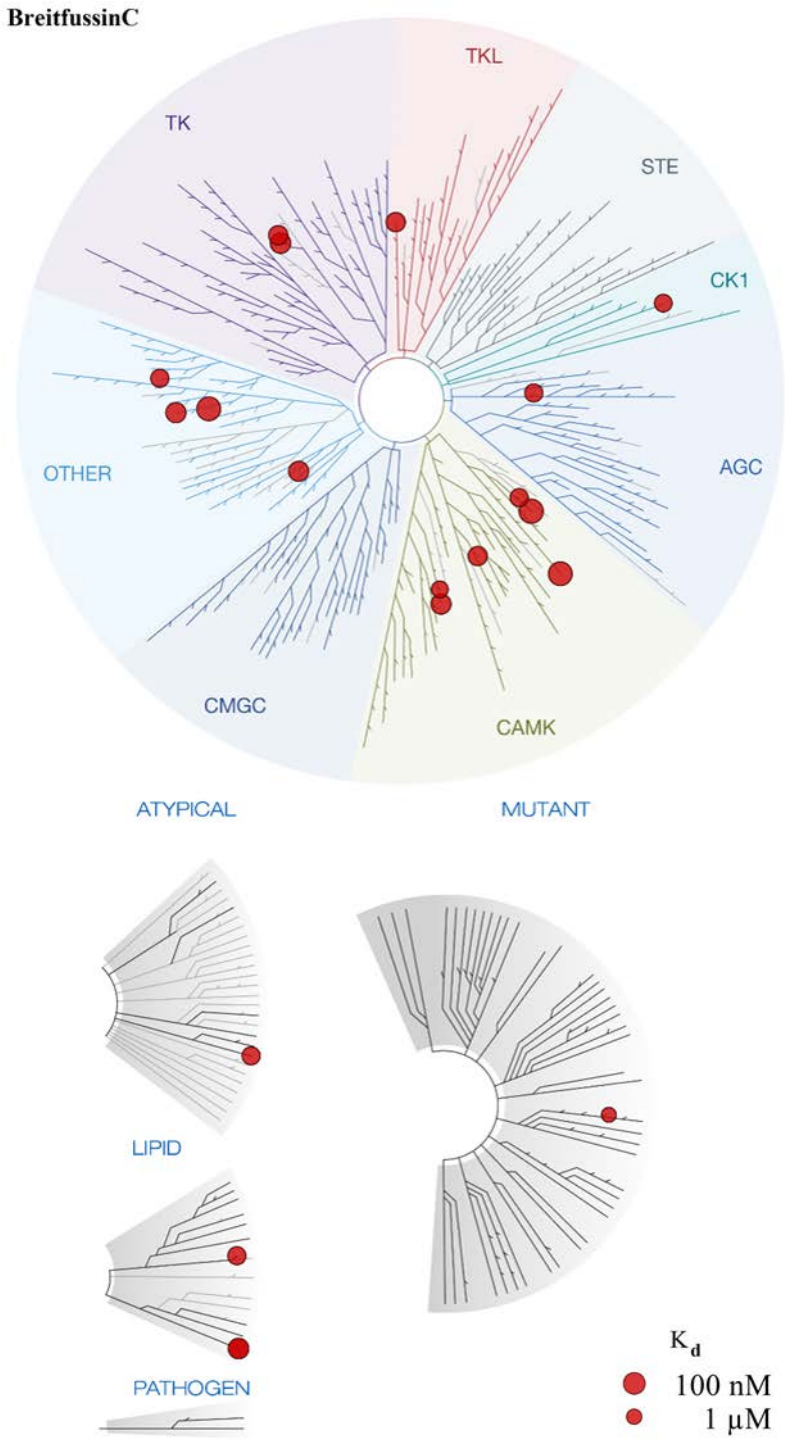


Figure S2. Curve images for K_d determination of breitfussin C (**3**) (termed MBC-041 in this figure). The amount of kinase measured by qPCR (y-axis) is plotted against the corresponding compound concentration in nM in log10 scale (x-axis). Data points marked "x" were not used for K_d determination.

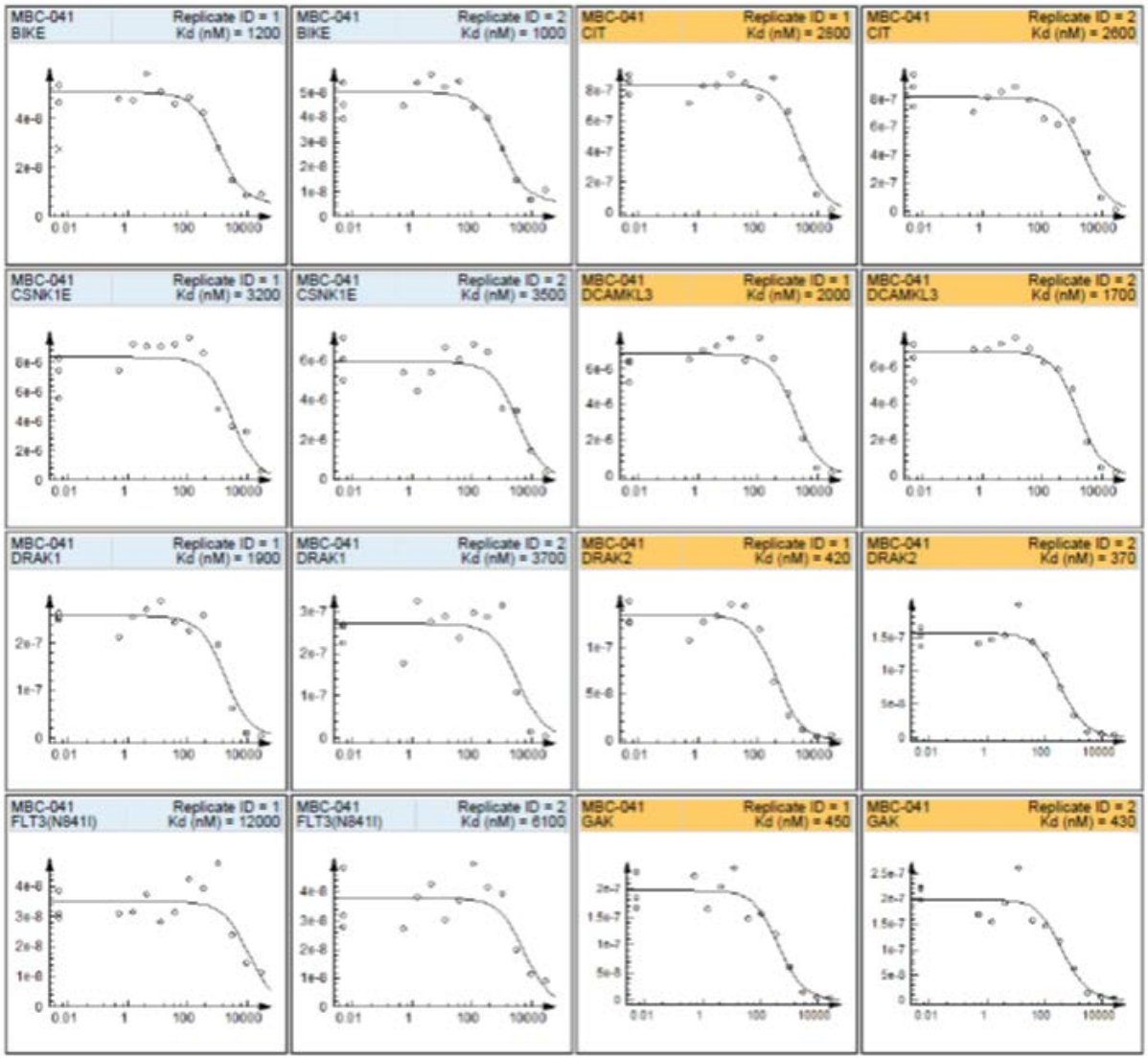


Figure S2. continued

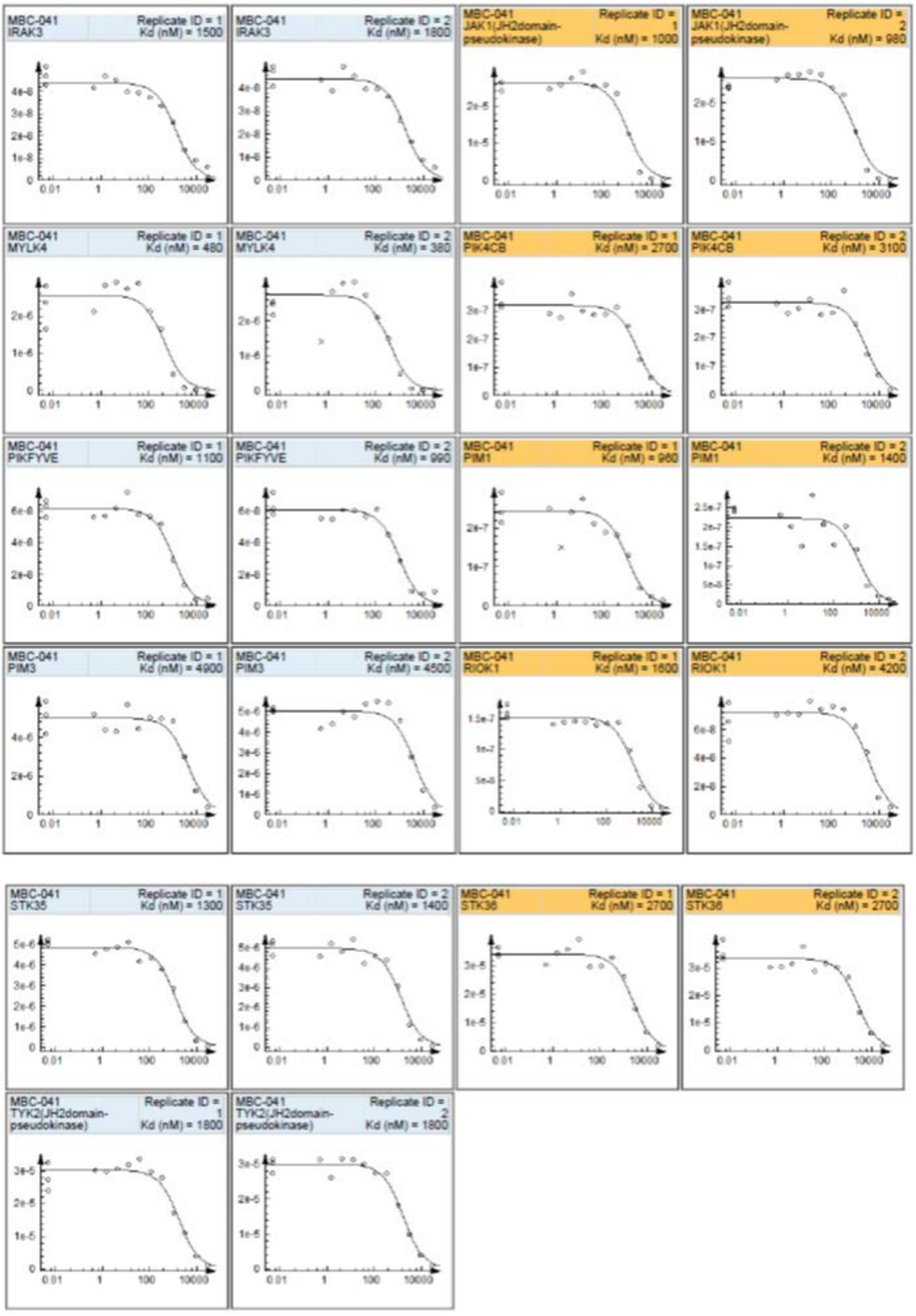


Figure S3. dose-response-time curves for breitfussin C (**3**) against HT-29 and breitfussin D (**4**) against MCF-7

