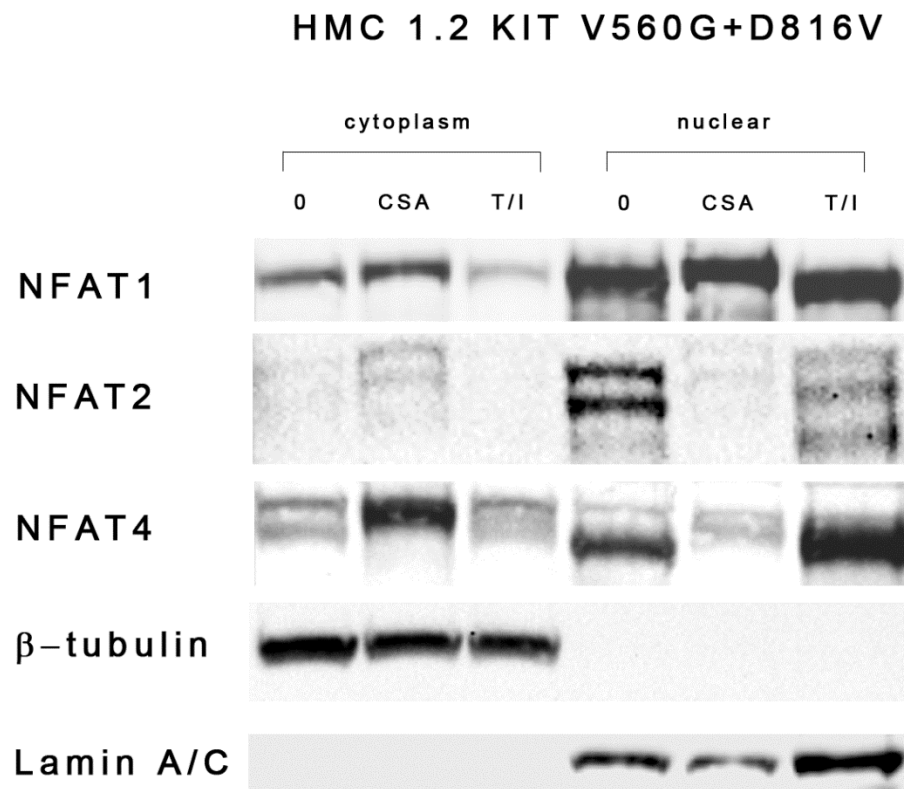
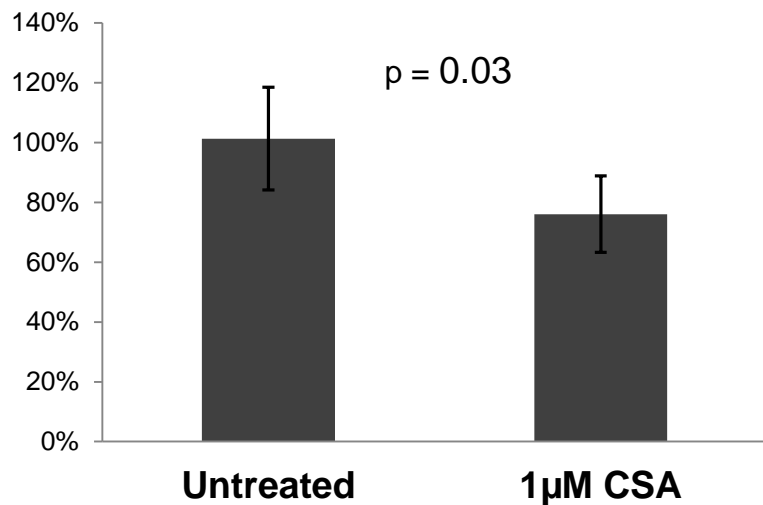


Supplementary Figure 1. HMC1.2 cells
have constitutively activated NFAT1,
NFAT2 and NFAT4 species

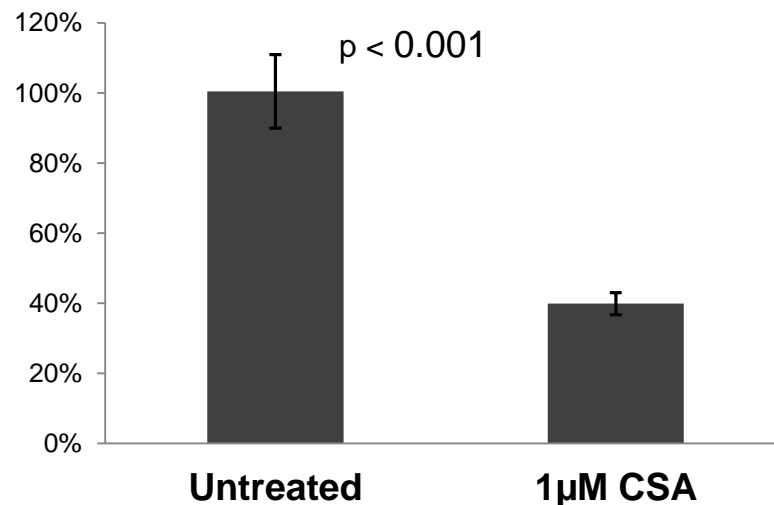


Supplementary Figure 2 Part 1. RT-PCR of transcripts modulated by 24 hour treatment with CSA.

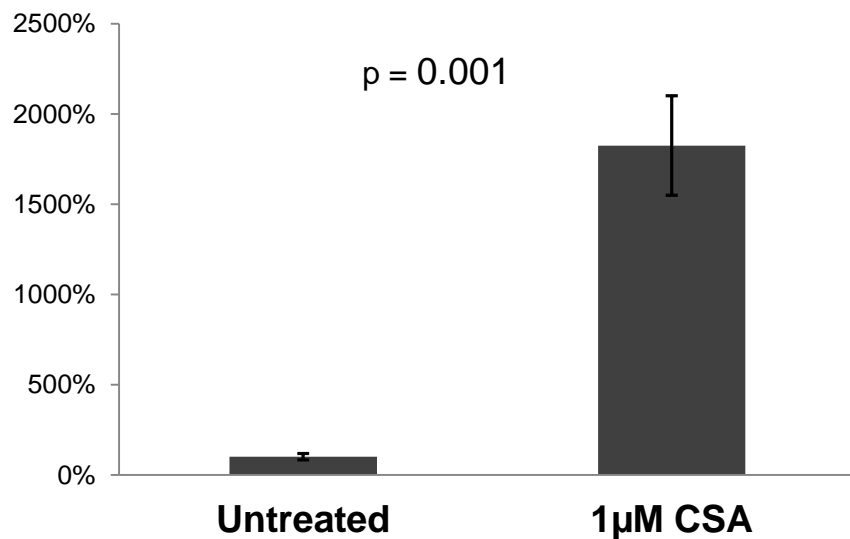
CCND2



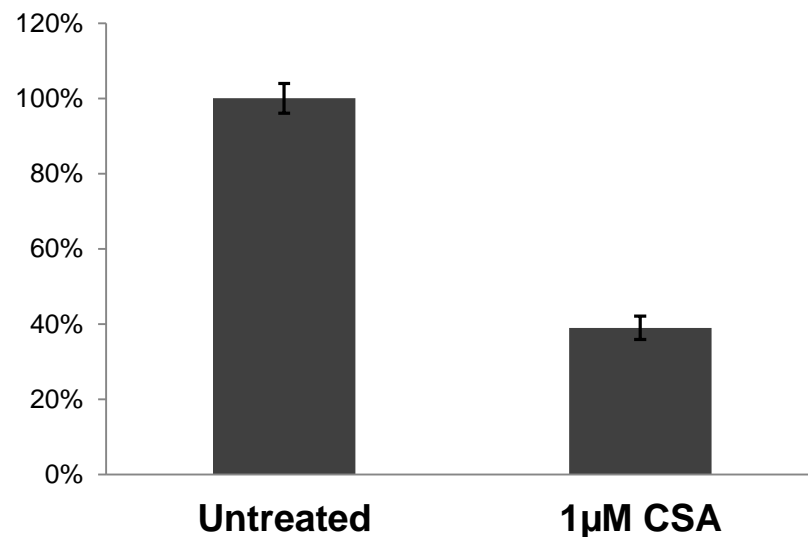
PIM2



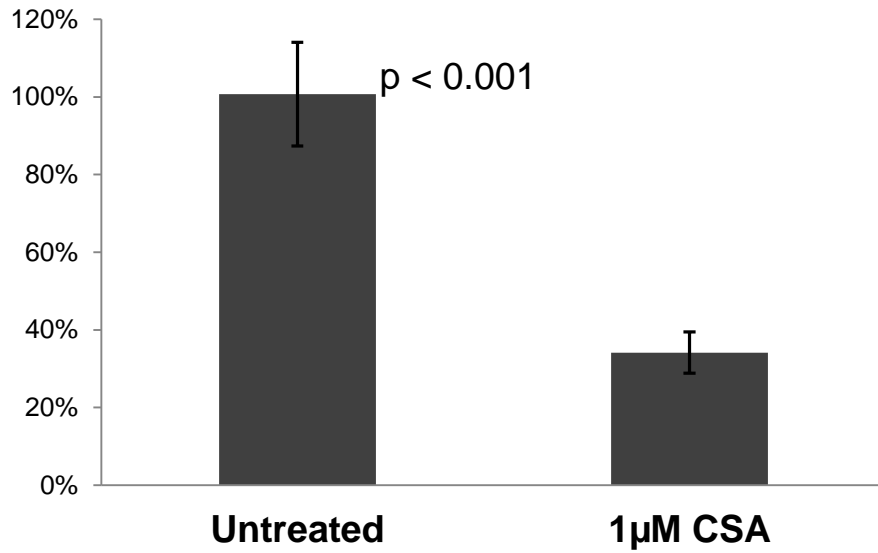
BCL6



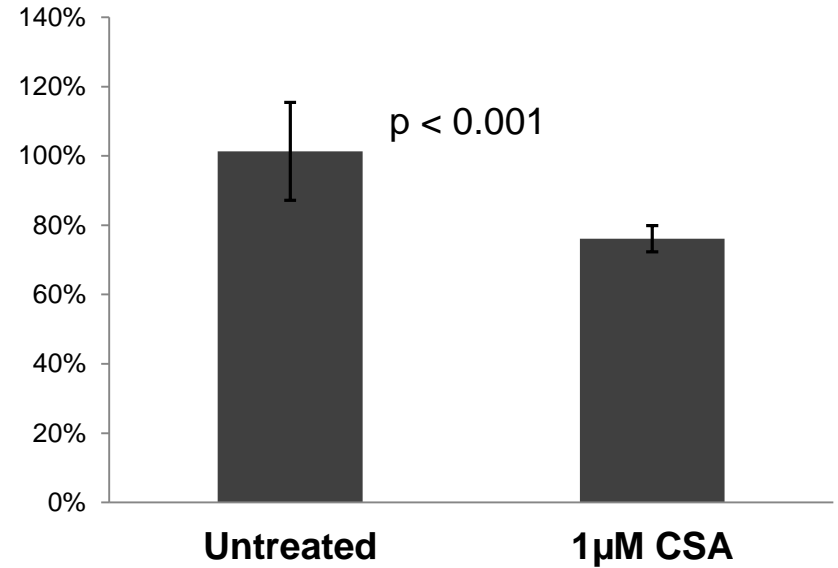
MYC



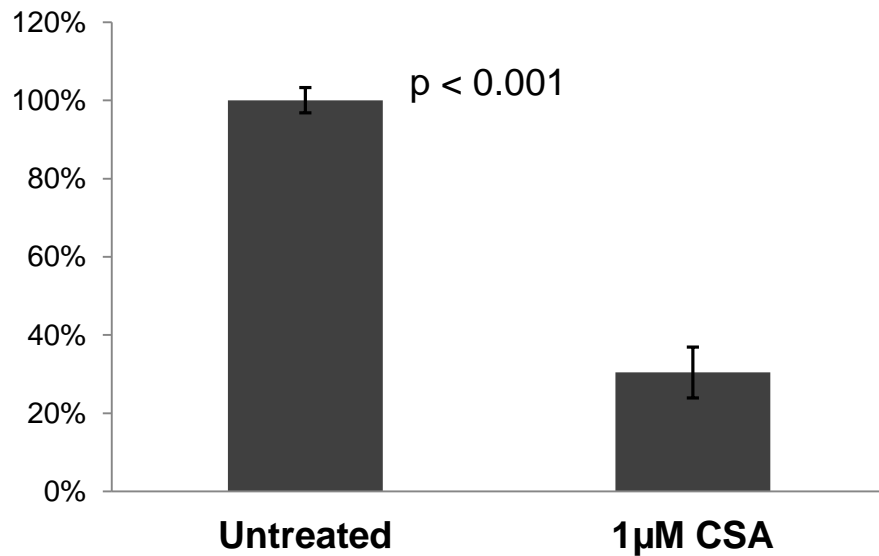
SOCS1



CCND1

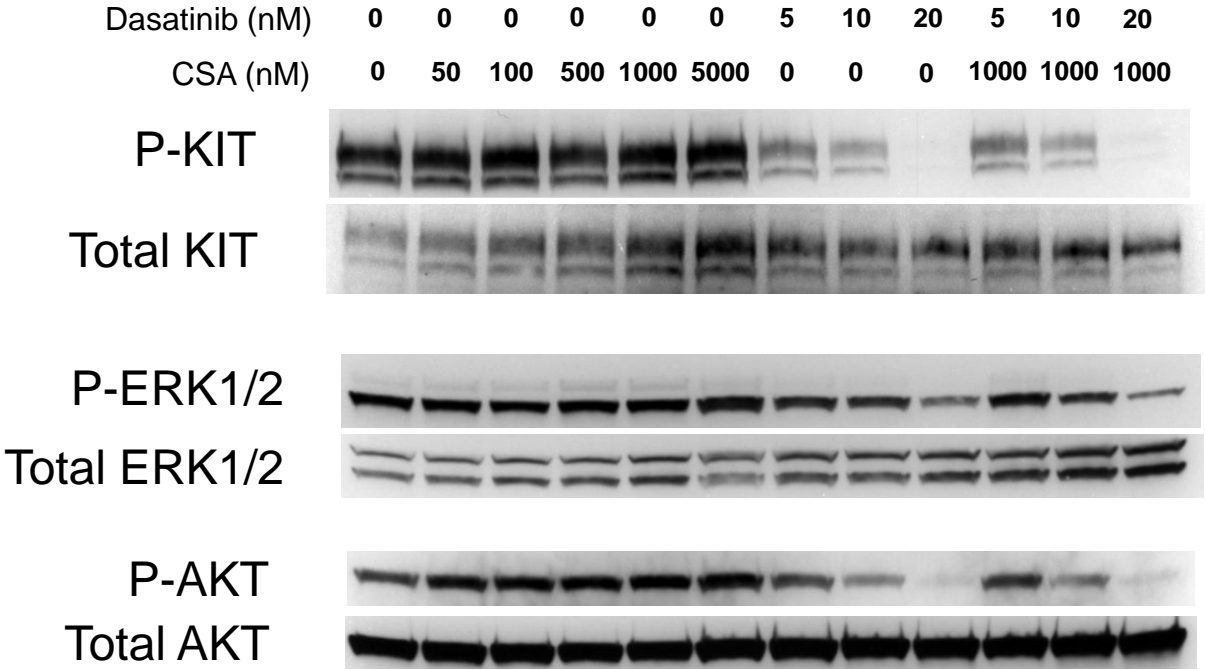


CISH



Supplementary Figure 2 Part 2. RT-PCR of transcripts modulated by 24 hour treatment with CSA.

Supplementary Figure 4. Combination treatment does not enhance the effect of KIT inhibitors on KIT autophosphorylation or downstream signaling.



Supplementary Table 1. Summary of KIT-mutant cell lines studied in this manuscript.

Cell Line	Species	KIT mutation	Media Conditions
P815	Murine	D814Y	DMEM+10% FBS, 1% pen strep, 1% L-Glut
RBL2H3	Murine	D817Y	MEM+10% FBS, 1% pen strep, 1% L-Glut
BR	Canine	L575P	DMEM+2% calf serum, .25g/L histidine, 25mL/L HEPES
C2	Canine	16bp insertion	DMEM+2% calf serum, .25g/L histidine, 25mL/L HEPES
HMC1.1	Human	V560G	DMEM+10% FBS, 1% pen strep, 1% L-Glut
HMC1.2	Human	V560G+D816V	DMEM+10% FBS, 1% pen strep, 1% L-Glut

Supplementary Table 2. Antibodies used in immunoblotting experiments.

Antibody	Concentration	Company	Catalog #
NFAT1	1:1000	Cell Signaling	4389
NFAT2	1:1000	Thermo Sci	MA3-024
NFAT3	1:400	Santa Cruz	sc-13036
NFAT4	1:400	Santa Cruz	sc-8321
B-actin	1:1000	Cell Signaling	4970
p-KIT	1:1000	Cell Signaling	3391
Total KIT	1:1000	Cell Signaling	3074
p-ERK	1:1000	Cell Signaling	9101
Total ERK	1:1000	Cell Signaling	9102
p-AKT	1:1000	Cell Signaling	9271
Total AKT	1:1000	Cell Signaling	9272
Lamin A/C	1:400	Santa Cruz	sc-7292
MYC	1:1000	Cell Signaling	5605
Pim2	1:400	Santa Cruz	sc-13514
p-STAT3	1:1000	Cell Signaling	9131
p-STAT5	1:1000	Cell Signaling	9351
Total STAT3	1:1000	Cell Signaling	9132
Total STAT5	1:1000	Cell Signaling	9352
B-tubulin	1:1000	Cell Signaling	2128

Supplementary Table 3. NFAT expression in KIT-mutant mast cells referenced in this manuscript.

Cell Line	NFAT1	NFAT2	NFAT3	NFAT4
P815	X	X		X
HMC1.1	X	X		X
HMC1.2	X	X		X
BR		X		X
C2		X		X
RBL2H3	X	X		X