Supplemental data

Figure S1.

PC RET/PTC3, PC RET/PTC3(Y1015F) and RET/PTC3(Y1062F) cell lysates were immunoblotted with anti-RET, anti-phosphotyrosine (PY) or phosphorylation-specific anti-RET antibodies (*p*Y905, *p*Y1015 or *p*Y1062).

Figure S2.

Graphic representation of total gene expression changes (**panel A**: up-regulated genes and **panel B**: down-regulated genes) in RET/PTC3, BRAF(V600E) and HRAS(V12) cells versus baseline (PC). The total number of up-regulated and down-regulated genes is represented on the y-axis. Arrows indicate the Y1062-dependent genes or the RET/PTC3, BRAF(V600E) and HRAS(V12) common targets. The different groups of genes are highlighted. Average signal log ratio (ASLR) is reported.

Figure S3.

Graphic representation of the gene expression changes above the cutoff (fold-change >4). **Panel A**: up-regulated genes and **panel B**: down-regulated genes in RET/PTC3, BRAF(V600E) and HRAS(V12) cells versus baseline (PC). Gene expression changes were sorted for HRAS(V12) (A) or BRAF(V600E) (B). The number of up-regulated and down-regulated genes is represented on the y-axis. Arrows indicate the Y1062-dependent genes or the RET/PTC3, BRAF(V600E) and HRAS(V12) common targets. The different groups of genes are highlighted. Average signal log ratio (ASLR) is reported.

Table S2. Rat amplimers used for Q-RT-PCR experiments

Rat gene	Forward/ Reverse	5'-to-3' sequence	Rat gene	Forward/ Reverse	5'-to-3' sequence
ACTIN	F	GTCAGGCAGCTCATAGCTCT	VDUP	F	CAAGTTCGCCTTTGAGCTTC
	R	TCGTGCGTGACATTAAAGAG		R	CCTTTTTGGCAGACACTGGT
DUSP6	F	CTTCAGTAAGTTCCAGGCCG	ADRA1B	F	CTCCAGCAAGGAGTTCAAGC
	R	GTAGAGTCCTTGGCACAGCC		R	CTTCCGCGACTGTGATCTCT
MMP3	F	GCTGAAGATGACAGGGAAGC	GCG	F	TGAATTTGAGAGGCATGCTG
	R	CTGGAGAATGTGAGTGGGGT		R	CAGCTATGGCGACTTCTTCC
MMP10	F	AAGTTCCTTGGGCTGGAGAT	PLA2G4A	F	CAGCTGGGACCAAAATGTCT
	R	TCTCAATGGCAGAATCCACA		R	CCTGCTGTCAGGGGTTGTAG
USP18	F	CGTTCAGTGCCTCCAGAAAT	MIG6	F	GCAGTCGCAATGAGTTTGAA
	R	ACTCCTCGGTCCAGATTGTG		R	TCATCCAGAGATGGGTCCTC
CITED2	F	GAAGGACTGGAAATGGCAGA	PGF	F	TGCTGGGAACAACTCAACAG
	R	GCGCCGTAGTGTATGTGCT		R	CAGCGACTCAGAAGGACACA
SPP1	F	GAGGAGAAGGCGCATTACAG	HHEX	F	ACTACACGCACGCCCTACTC
	R	ACAGAATCCTCGCTCTCTGC		R	CCAGACGCTTTCTCTCAGGT
SGK	F	GAAGCTTGCCAACAACTCCT	PAK3	F	GGAGGAGGGGATAAAACCAA
	R	TGCCTTTTCCGATCACTTTC		R	ATGTTGGAGGTTTGGAGCAG
TH2	F	ACACAGCGGAAGAGATTGCT	PEL1	F	TAATGGGTCTCTCCCAAACG
	R	GATGCTGTCCTCTCGGTAGC		R	TGCTATGCTGGTCCTTGTTG
CA2	F	AGATGGACTGGCTGTTTTGG	S100A6	F	AAGGAGGGTGACAAGCACAC
	R	GAGTGGTCAGAGAGCCAGGA		R	CCCAGGAAGGCAACATACTC
PI4K2B	F	TGCAAAATCAAGAGGCAAAA	CXCL1	F	AGACAGTGGCAGGGATTCAC
	R	CTAATGTTCTCGGGCAAAGG		R	TTGGACAATCTTCTGAACCAT
DYSF	F	CAGGAGGAGAGGAAGACACG	S100A4	F	GGTCTGGTCTCAACGGTCAC
	R	GATAGTGGGGAGGAGGATGG		R	AATGCAGCTTCGTCTGTCCT
MMP12	F	TTGCATGAGATCATGGA	CCL2	F	AGATGCAGTTAATGCCCCAC
	R	AGGAACAGGTTTGTGCCTTG		R	TGCTGAAGTCCTTAGGGTTGA
MMP13	F	GCCTTCAGAAAAGCCTTCAA	RDC1	F	TGGGAACTTGAAGGAAGGAG
	R	AAAAGCGTGTGCCAGAAGAC		R	CACTTCACTTCTTGGATACTGTGAA
LGALS3	F	CTGGGGCCTATCCTGCTACT	TMSB4x	F	ACAAACCCGATATGGCTGAG
	R	ATTGAAGCGGGGGTTAAAGT		R	GAAGGCAATGCTTGTGGAAT
LGALS1	F	TCAAACCTGGGGAATGTCTC			
	R	GCAGTCTCCCGTTGTTCTGT			
IRF7	F	ATTTCAGCCGTAGGGATCTG			
	R	ATCGGAAGTTGGTCTTCCAG			
FHL2	F	CTGTGCACCGACTGCTATTC			
	R	AAGCTCTTGGTTCCGATGG			
ITGA1	F	AAAACGAAGAAGGCAAATGG			
	R	ACATTGGGGATCGATGTGTT			
ADM	F	CTCGACACTTCCTCGCAGTT			
	R	AGACGTGCTCTGCTTGCTCT			
IRF8	F	CACCACCACCTCCCTTGA			
	R	CAGGTGTCCAAACAGCTTCC			
GAS6	F	TTCTGCTTGTGCAAAGATGG			
	R	CCCCACAGGTGTCTGAGTCT			
CREM	F	AGTCCCCAGCAACTAGCAGA			
	R	GATTTTCAAGCACAGCCACA			
GIRA1	F	CTGCTTCCAAAGAGGCTGAC			
	R	TGTTGCAACTCACGTTCACA			

Table S3. Human amplimers used for RT-PCR experiments

Human gene	Forward/ Reverse	5'-to-3' sequence
b-actin	F	TGCGTGACATTAAGGAGAAG
	R	GCTCGTAGCTCTTCTCCA
ARPC1B	F	AAGAACAGCGTCAGCCAGAT
	R	CTTCAAGGCTGACTCCAAGC
RUNX1	F	GGCTGGCAATGATGAAAACT
	R	TGATGGCTCTGTGGTAGGTG
MMP3	F	TGCTTTGTCCTTTGATGCTG
	R	GGAAGAGATGGCCAAAATGA
MMP10	F	GAGGAGGACTCCAACAAGGA
	R	TCCAACCCAAGGAACTTCTG
DUSP6	F	GACTGGAACGAGAATACGGG
	R	AGCCGTCTAGATTGGTCTCG
SPP1	F	AAATACCCAGATGCTGTGGC
	R	ATCCATGTGGTCATGGCTTT
S100A6	F	GAAGGAGCTGAAGGAGCTGA
	R	TGGAAGTTCACCTCCTGGTC
CD44	F	GTTGTTTGCTGCACAGATGG
	R	AAGTCCCATCAGTGGTTTGG

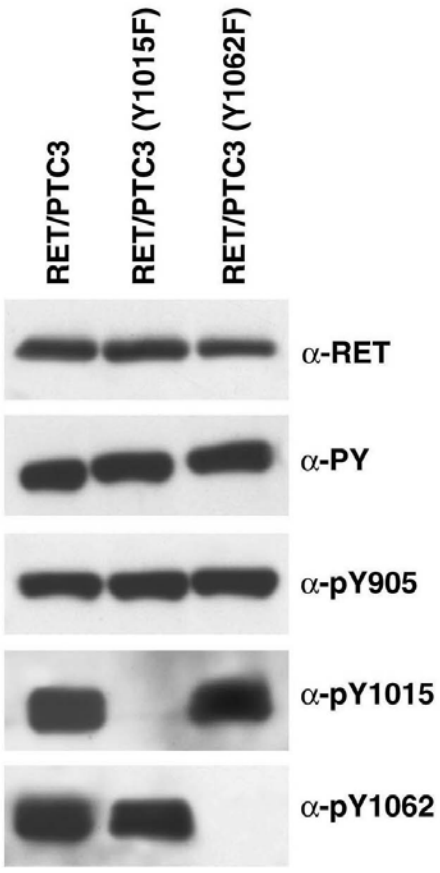
RET/PTC3
RET/PTC3 (Y1015F)
RET/PTC3 (Y1062F)
α-RET
α-PY
α-pY905
α-pY1015
α-pY1062

Fig. S1

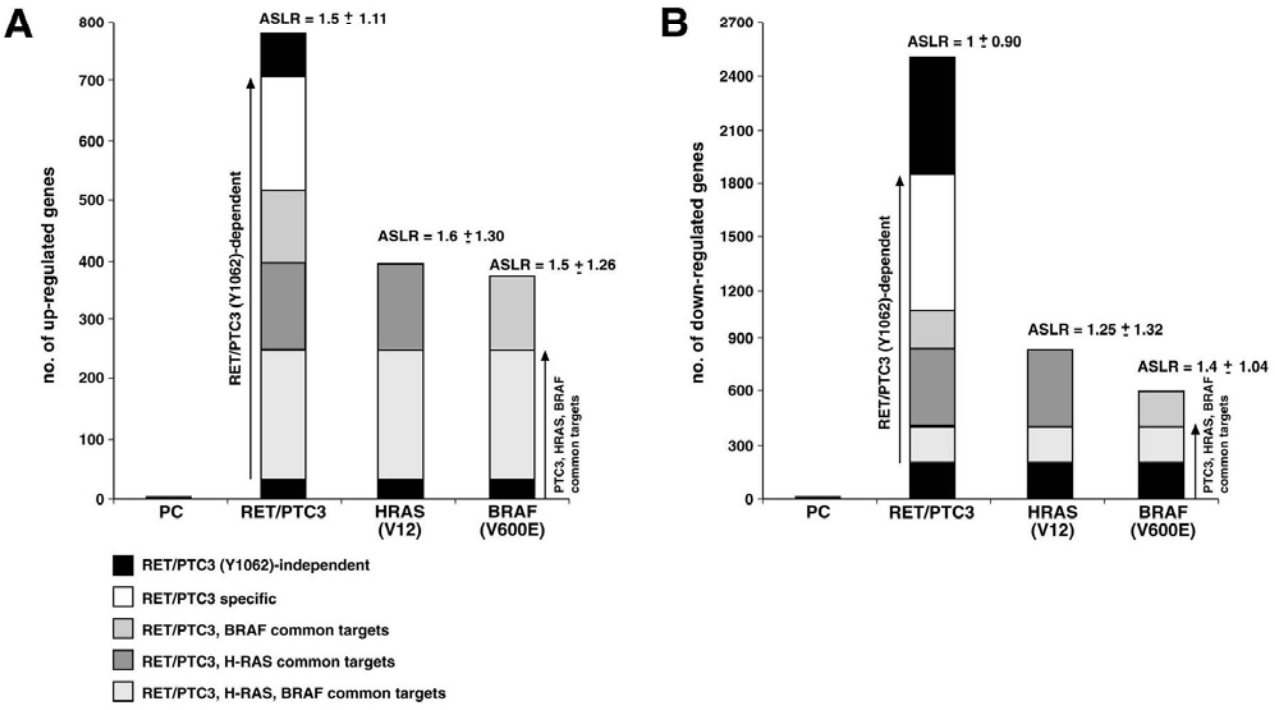
A
no. of up-regulated genes
800
700
600
500
400
300
200
100
0
ASLR = 1.5 ± 1.11
ASLR = 1.6 ± 1.30
ASLR = 1.5 ± 1.26
RET/PTC3 (Y1062)-dependent
PTC3, HRAS, BRAF common targets
PC
RET/PTC3
HRAS (V12)
BRAF (V600E)
RET/PTC3 (Y1062)-independent
RET/PTC3 specific
RET/PTC3, BRAF common targets
RET/PTC3, H-RAS common targets
RET/PTC3, H-RAS, BRAF common targets
B
no. of down-regulated genes
2700
2400
2100
1800
1500
1200
900
600
300
0
ASLR = 1 ± 0.90
ASLR = 1.25 ± 1.32
ASLR = 1.4 ± 1.04
RET/PTC3 (Y1062)-dependent
PTC3, HRAS, BRAF common targets
PC
RET/PTC3
HRAS (V12)
BRAF (V600E)

Fig. S2

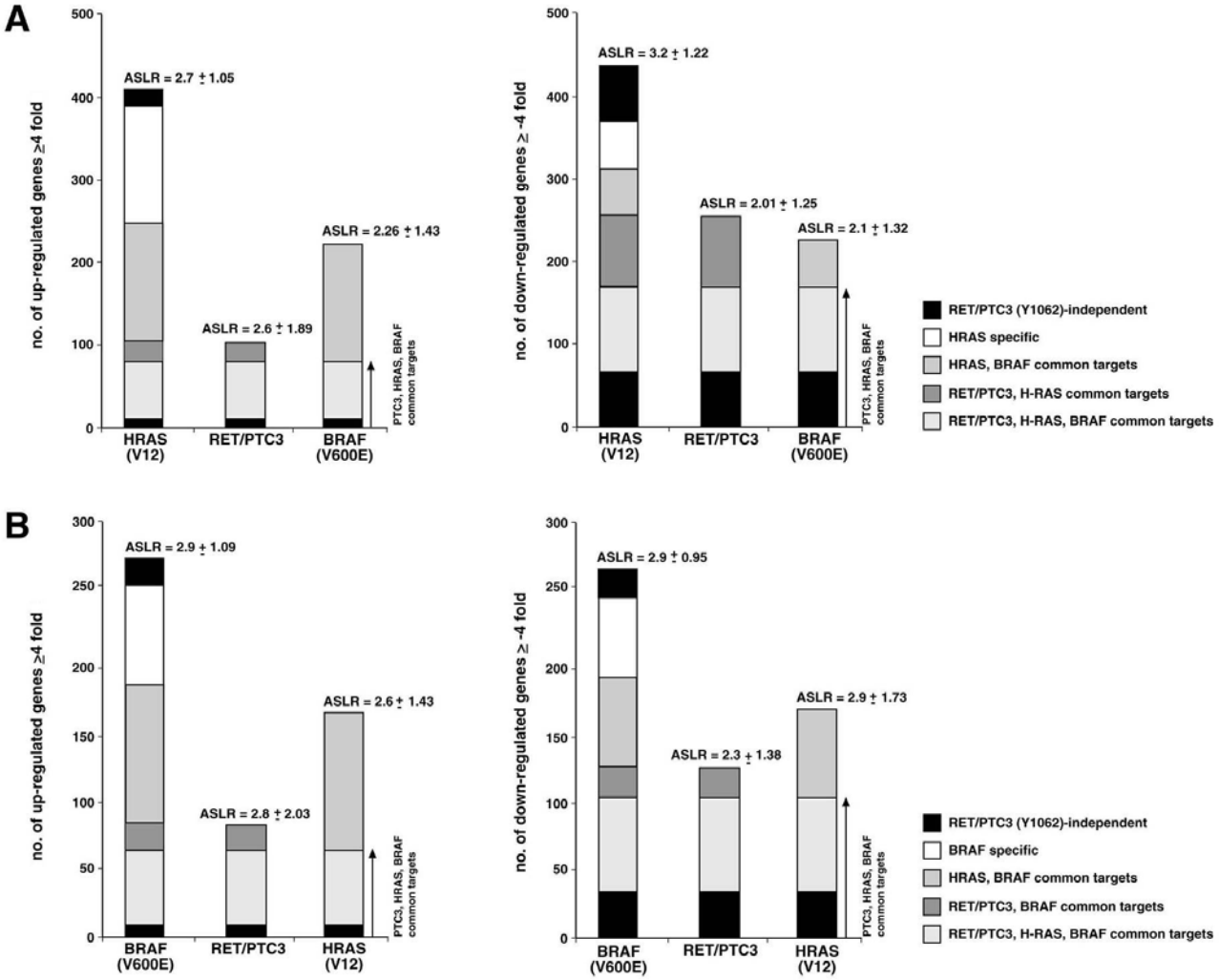
A
no. of up-regulated genes ≥4 fold
ASLR = 2.7 ± 1.05
ASLR = 2.6 ± 1.89
ASLR = 2.26 ± 1.43
HRAS (V12)
RET/PTC3
BRAF (V600E)
PTC3, HRAS, BRAF common targets
no. of down-regulated genes ≥4 fold
ASLR = 3.2 ± 1.22
ASLR = 2.01 ± 1.25
ASLR = 2.1 ± 1.32
RET/PTC3 (Y1062)-independent
HRAS specific
HRAS, BRAF common targets
RET/PTC3, H-RAS common targets
RET/PTC3, H-RAS, BRAF common targets
B
no. of up-regulated genes ≥4 fold
ASLR = 2.9 ± 1.09
ASLR = 2.8 ± 2.03
ASLR = 2.6 ± 1.43
BRAF (V600E)
RET/PTC3
HRAS (V12)
PTC3, HRAS, BRAF common targets
no. of down-regulated genes ≥4 fold
ASLR = 2.9 ± 0.95
ASLR = 2.3 ± 1.38
ASLR = 2.9 ± 1.73
RET/PTC3 (Y1062)-independent
BRAF specific
HRAS, BRAF common targets
RET/PTC3, BRAF common targets
RET/PTC3, H-RAS, BRAF common targets

Fig.S3