

Supplementary materials

Table S1. Sequences of primers and hydrolysis probes designed for the detection of ACTB gene and fusion genes using Real-Time PCR

Gene	Primer/probe	Sequences	Location
ACTB	<i>primer</i>	F: TCTACAATGAGCTGCGTGTG	Exon 3
	<i>primer</i>	R: AGCCTGGATAGCAACGTACA	Exon 4
	<i>probe</i>	HEX-CAAGGCCAACC GCGAGAAGA	Exon 3
Gene fusion	Primer/probe	Sequences	Location
CCDC6/RET	<i>primer</i>	F: GCAAAGCCAGCGTTACCAT	Exon 1
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
NCOA4/RET	<i>primer</i>	F: GCAGACCTTGGAGAACAGTCA	Exon 7
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
PAX8/PPAR γ	<i>primer</i>	F: TCGACTCACCAGACCTACCC	Exon 8
	<i>primer</i>	F: GTGTACGGGCAGTTCACG	Exon 9
	<i>primer</i>	F: CTATGCCTCCTCTGCCATC	Exon 10
	<i>primer</i>	R: GAGAGATCCACGGAGCTGAT	Exon 2
	<i>probe</i>	FAM-GAGATGCCATTCTGGCCCACC	Exon 2
ACBD5/RET	<i>primer</i>	F: TCCTCAGCCCACCTCACA	Exon 11
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
AFAP1L2/RET	<i>primer</i>	F: GTCATCAAGGACAACAGGCTTC	Exon 6
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
IKBKG/RET	<i>primer</i>	F: GCACAAGATTGTGATGGAGACC	Exon 7
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
PRKAR1A/RET	<i>primer</i>	F: CATCGACCGAGACAGCTATAGAA	Exon 7
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
RASAL2/RET	<i>primer</i>	F: TGCAAGCAGTTATTGATGCAAA	Exon 15
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
RUFY2/RET	<i>primer</i>	F: TGAAAACACAGCAGCACCTAGA	Exon 9
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
SQSTM1/RET	<i>primer</i>	F: TGAGAAAGATCGCCTTGGAGT	Exon 6
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12

TPR/RET	<i>primer</i>	F: GAGGTGGAACAAAGGCATACAC	Exon 20
	<i>primer</i>	R: TTCCAAATTCGCCTTCTCCT	Exon 12
	<i>probe</i>	FAM-CCAAAGTGGGAATTCCTCGG	Exon 12
ETV6/NTRK3	<i>primer</i>	F: CTGCATCAGAACCATGAAGA	Exon 4
	<i>primer</i>	R: GTGGTTGATGTGGTGCAGT	Exon 14
	<i>probe</i>	FAM-CCCGTGGCTGTCATCAGTGG	Exon 14
RBPMS/NTRK3	<i>primer</i>	F: ACCTCAGTTCATTGCCAGAG	Exon 5
	<i>primer</i>	R: GTGGTTGATGTGGTGCAGT	Exon 14
	<i>probe</i>	FAM-CCCGTGGCTGTCATCAGTGG	Exon 14
EML4/NTRK3	<i>primer</i>	F: TCATGTGGCCTCAGTGAAA	Exon 2
	<i>primer</i>	R: GTGGTTGATGTGGTGCAGT	Exon 14
	<i>probe</i>	FAM-CCCGTGGCTGTCATCAGTGG	Exon 14
SQSTM1/NTRK3	<i>primer</i>	F: AGCTGCCCTTAGCCCTCT	Exon 5
	<i>primer</i>	R: GTGGTTGATGTGGTGCAGT	Exon 14
	<i>probe</i>	FAM-CCCGTGGCTGTCATCAGTGG	Exon 14
TPM3/NTRK1	<i>primer</i>	F: CTGAGAGATCGGTAGCCAAG	Exon 7
	<i>primer</i>	R: AAAGGTGTTTCGTCCTTCTTC	Exon 10
	<i>probe</i>	FAM-CTAACAGCACATCTGGAGACCCGG	Exon 10
IRF2BP2/NTRK1	<i>primer</i>	F: CCACTGCCTCACCTCATT	Exon 2
	<i>primer</i>	R: AAAGGTGTTTCGTCCTTCTTC	Exon 10
	<i>probe</i>	FAM-CTAACAGCACATCTGGAGACCCGG	Exon 10
SQSTM1/NTRK1	<i>primer</i>	F: AGCTGCCCTTAGCCCTCT	Exon 5
	<i>primer</i>	R: AAAGGTGTTTCGTCCTTCTTC	Exon 10
	<i>probe</i>	FAM-CTAACAGCACATCTGGAGACCCGG	Exon 10
TPR/NTRK1	<i>primer</i>	F: CCAAGTTGCTTCTCAGTCTTC	Exon 21
	<i>primer</i>	R: AAAGGTGTTTCGTCCTTCTTC	Exon 10
	<i>probe</i>	FAM-CTAACAGCACATCTGGAGACCCGG	Exon 10
STRN/ALK	<i>primer</i>	F: CGGGACAGAATTGAATCAGG	Exon 3
	<i>primer</i>	R: CTCCATCTGCATGGCTTG	Exon 20
	<i>probe</i>	FAM-GTACCGCCGGAAGCACCAGG	Exon 20
EML4/ALK	<i>primer</i>	F: TCATGTGGCCTCAGTGAAA	Exon 2
	<i>primer</i>	R: CTCCATCTGCATGGCTTG	Exon 20
	<i>probe</i>	FAM-GTACCGCCGGAAGCACCAGG	Exon 20
AGK/BRAF	<i>primer</i>	F: GCCATTGGCTCTATGGAAAA	Exon 2
	<i>primer</i>	R: GCTGTGGAATTGGAATGGAT	Exon 8
	<i>probe</i>	FAM-GCCCCAAATTCTCACCAGTCCG	Exon 8
RRM1/BRAF	<i>primer</i>	F: TACCAACCGCCCACT	Exon 7
	<i>primer</i>	R: GCTGTGGAATTGGAATGGAT	Exon 8
	<i>probe</i>	FAM-GCCCCAAATTCTCACCAGTCCG	Exon 8
PAX8/GLIS3	<i>primer</i>	F: CGGACCTACGGGAGGAAG	Exon 2
	<i>primer</i>	R: AGATTGTTGCAGCTGCCTTT	Exon 3
	<i>probe</i>	FAM-GGCTTTGGGCCTCAGTGCAA	Exon 3