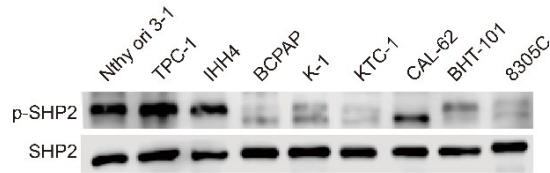
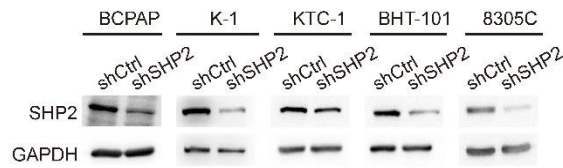


**Table S1:** The primers of RT-qPCR assays

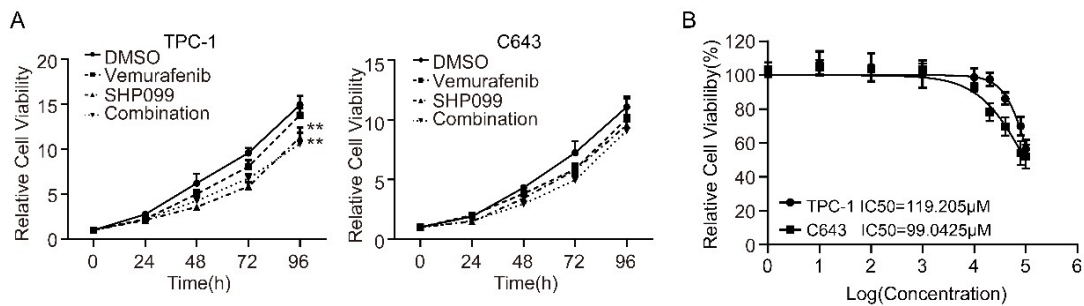
	<b>Forward</b>	<b>Reverse</b>
FGF2	AGCGGCTGTACTGCAAAAACGG	CCTTTGATAGACACAACCTCCTCTC
PDGFA	CAGCGACTCCTGGAGATAGACT	CGATGCTTCTCTTCCTCCGAATG
PDGFB	GAGATGCTGAGTGACCACTCGA	GTCATGTTCAAGGTCCAACCTCGG
IGF1	CTCTTCAGTTCGTGTGTGGAGAC	CAGCCTCCTTAGATCACAGCTC
IGF2	TGGCATCGTTGAGGAGTGCTGT	ACGGGGTATCTGGGGAAGTTGT
VEGFA	TTGCCTTGCTGCTCTACCTCCA	GATGGCAGTAGCTGCGCTGATA
VEGFB	AAGGACAGTGCTGTGAAGCCAG	TGGAGTGGGATGGGTGATGTCA
EGF	TGCGATGCCAAGCAGTCTGTGA	GCATAGCCCAATCTGAGAACCAC
GAS6	CCTTCCATGAGAAGGACCTCGT	GAAGCACTGCATCCTCGTGTTT
PROS1	GGCTCCTACTATCCTGGTTCTG	CAAGGCAAGCATAACACCAGTGC
EFNA1	CTGTCTGAGAAGTTCAGCGCT	CCACTGACAGTCACCTTCAACC
ANGPT4	GTGGTGTCTACACCATCCAGGT	TCCGCTGAAAATTCACGGTGCC
EFNB2	GCAAGTTCTGCTGGATCAACCAG	GCTGTTGCCGTCTGTGCTAGAA
WNT5A	TACGAGAGTGCTCGCATCCTCA	TGTCTTCAGGCTACATGAGCCG
AXL	GTTTGGAGCTGTGATGGAAGGC	CGCTTCACTCAGGAAATCCTCC
EGFR	AACACCCTGGTCTGGAAGTACG	TCGTTGGACAGCCTTCAAGACC
FGFR1	GCACATCCAGTGGCTAAAGCAC	AGCACCTCCATCTCTTTGTCCG
FGFR2	GTGCCGAATGAAGAACACGACC	GGCGTGTTGTTATCCTCACCAG
FGFR3	TCCATCTCCTGGCTGAAGAACG	TGTTCTCCACGACGCAGGTGTA
FGFR4	AACACCGTCAAGTTCGCTGTC	CATCACGAGACTCCAGTGCTGA
HER2	GGAAGTACACGATGCGGAGACT	ACCTTCCTCAGCTCCGTCTCTT
HER3	CTATGAGGCGATACTTGGAACGG	GCACAGTTCCAAAGACACCCGA
IGFR1	TCGACATCCGCAACGACTATC	CCAGGGCGTAGTTGTAGAAGAG
MET	TGCACAGTTGGTCCTGCCATGA	CAGCCATAGGACCGTATTTCCG
PDGFRA	GACTTTCGCCAAAGTGGAGGAG	AGCCACCGTGAGTTCAGAACGC
PDGFRB	TGCAGACATCGAGTCCTCCAAC	GCTTAGCACTGGAGACTCGTTG
RET	GTCCTCTTGCTCCACTTCAACG	CCTGGCAGTTTTCCACACAGAC
VEGFR2	GGAACCTCACTATCCGCAGAGT	CCAAGTTCGTCTTTTCCTGGGC



**Supplementary Figure 1.** Phosphorylation levels of SHP2 were significantly higher in non-BRAFV600E mutant thyroid cancer cell lines than in BRAFV600E mutant thyroid cancer cell lines.



**Supplementary Figure 2.** Validation of knockdown levels of SHP2 in thyroid cancer cell lines with different BRAFV600E.



**Supplementary Figure 3.** The vemurafenib had no effect in non-BRAF mutant thyroid cancer cell lines. **A** Cell viability detection by a CCK-8 assay in TPC-1 and C643 cell lines. **B** Vemurafenib IC<sub>50</sub> detection by a CCK-8 assay in TPC-1 and C643 cell lines.