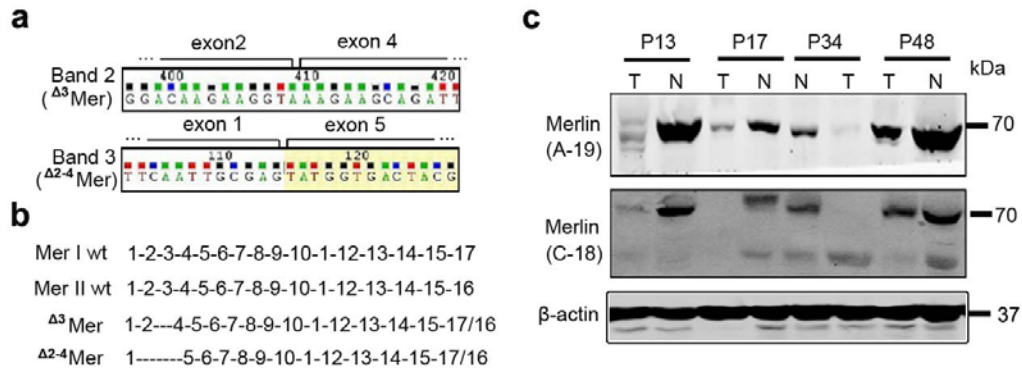


Supplementary Figures

Supplementary Figure 1



Supplementary Figure 1. Detection of Δ^{2-4} Merlin in PVTT. **(a)** Sequence analysis of the fragments from Fig. 3b. Upper sequence showed deletion of exon 3. Lower sequence showed deletion of exon 2, 3 and 4. **(b)** Schematic overview of N-terminal frameshift of Merlin. Δ^3 Mer: Δ^3 Merlin; Δ^{2-4} Mer: Δ^{2-4} Merlin. **(c)** Western blots for Merlin proteins from 4 pairs of HCC tumor and tumor adjacent tissues (without PVTT) using antibody (Merlin A-19 and C-18).

Supplementary Figure 2

Fig. 1c

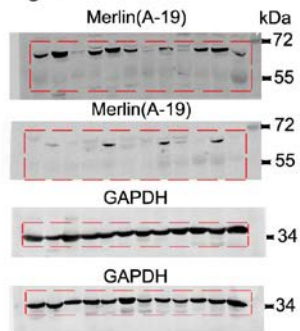


Fig. 2a

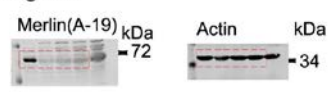


Fig. 2f

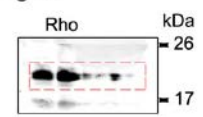


Fig. 2b

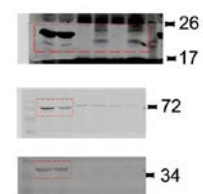
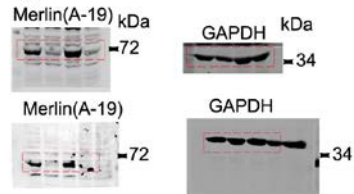


Fig. 3d

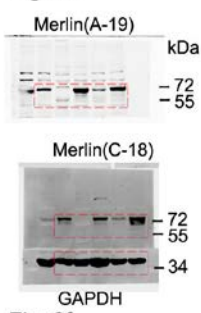


Fig. 3e

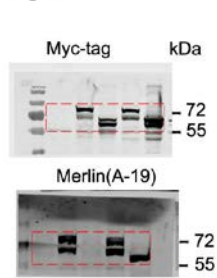


Fig. 3g

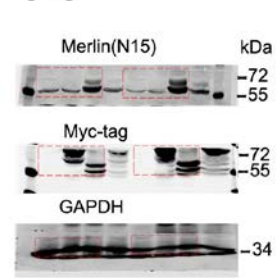


Fig. 3f

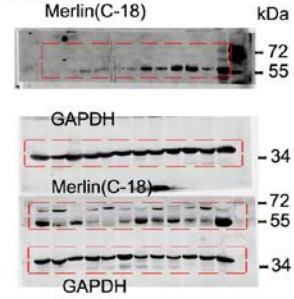


Fig. 3h

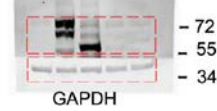
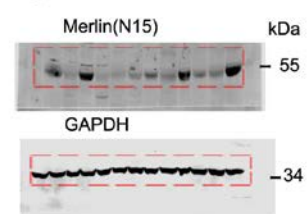
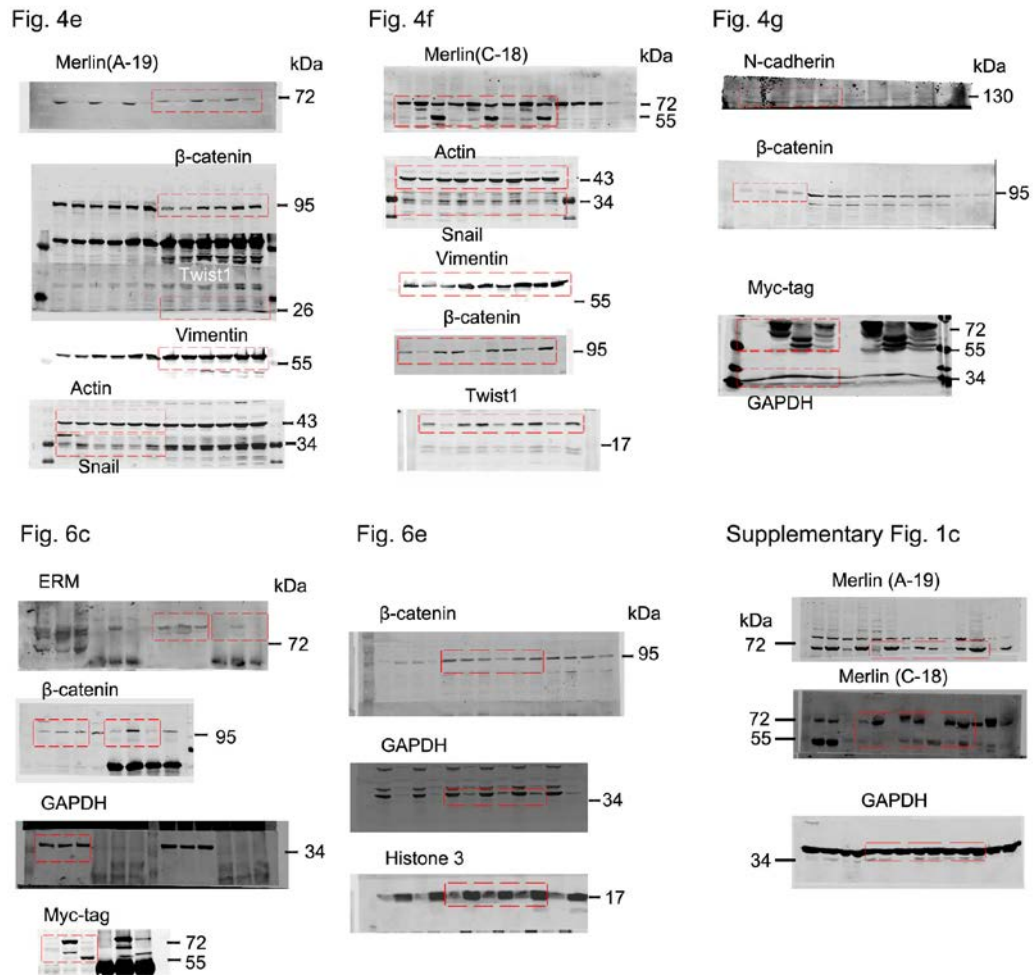


Fig. 3h



Supplementary Figure 2 (continued)



Supplementary Figure 2. The original immunoblots for Figure 1, 2, 3, 4, 6 and supplementary Figure 1. Red square represents where a panel in each immunoblot was cut. These images contain protein ladder markers that can partially be seen. We have also labeled the size of ladders on the right side according to the product instruction.

Supplementary Tables

Supplementary Table 1. Analysis of Nf2 exome in HCC patients.

Sample No. Order	P2234 Tumor	P2234 Adjacent	P2234 PVT	P1243 Tumor	P1243 Adjacent	P1243 PVT	P3432 Tumor	P3432 Adjacent	P3432 PVT
Exon 1	N	N	N	N	N	N	N	N	N
Exon2	N	N	N	N	N	N	N	N	N
Exon3	N	N	N	N	N	N	N	N	N
Exon4	N	N	N	N	N	N	N	N	N
Exon5	N	N	N	N	N	N	N	N	N
Exon6	N	N	N	N	N	N	N	N	N
Exon7	N	N	N	N	N	N	N	N	N
Exon8	N	N	N	N	N	N	N	N	N
Exon9	N	N	N	N	N	N	N	N	N
Exon10	N	N	N	N	N	N	N	N	N
Exon11	N	N	N	N	N	N	N	N	N
Exon12	N	N	N	N	N	N	N	N	N
Exon13	N	N	N	N	N	N	N	N	N
Exon14	N	N	N	N	N	N	N	N	N
Exon15	N	N	N	N	N	N	N	N	N
Exon16	N	N	N	N	N	N	N	N	N
Exon17	N	N	N	N	N	N	N	N	N

N: no mutation.

Supplementary Table 2. Sequences of PCR primers used for qPCR

Gene	Forward primer	Reverse primer
Oct4	AGTGAGAGGCAACCTGGAGA	ACACTCGGACCACATCCTTC
Merlin	CGAAGCACTGATGCGGTCTG	TGGGTTTCATGGGCGGGTAC
CD133	CTGGGGCTGCTGTTTATTATTCTG	ACGCCTTGTCTTGGTAGTGTTG
Sox2	CAAGATGCACA AACTCGGAGA	GCTTAGCCTCGTCGATGAAC
KLF4	CCCACACAGGTGAGAAACCT	ATGTGTAAAGGCGAGGTGGTC
Notch-1	TCCACCAGTTTGAATGGTCA	CGCAGAGGGTTGTATTGGTT
β -catenin	GAAACGGCTTTCA GTTGA GC	CTGGCCATATCCACCA GA GT
C-myc	ATGGCCATTACAAAGCCG	TTTCTGGAGTAGCA GCTCCTAA
Nanong	TTTGTGGGCCTGAAGAAA AACT	AGGGCTGTCTGAATAAGCAG
BMI-1	CCACCTGATGTGTGTGCTTTG	TTCAGTAGTGGTCTGGTCTTGT
Vimentin	CTGGATTCCTCTTCGTGGA	CGAAAACACCCTGCAATCTT
Snail	CATCTGAGTGGGTCTGGA GG	CTTCTCTAGGCCCTGGCTG
Fibronectin	AAACCAATTCTTGGAGCAGG	CCATAAAGGGCAACCAAGAG
CD90	CTAGTGGACCA GA GCCTTCG	GCACGTGCTTCTTTGTCTCA
EpCAM	CTGCCAAATGTTTGGTGATG	AAAGCCCATCATTGTTCTGG
18S	CGGCTACCA CATCCA A GGAA	GCTGGAATTACCGCGGCT