

Supplemental Materials

Establishment and genomic characterization of a sporadic malignant peripheral nerve sheath tumor cell line

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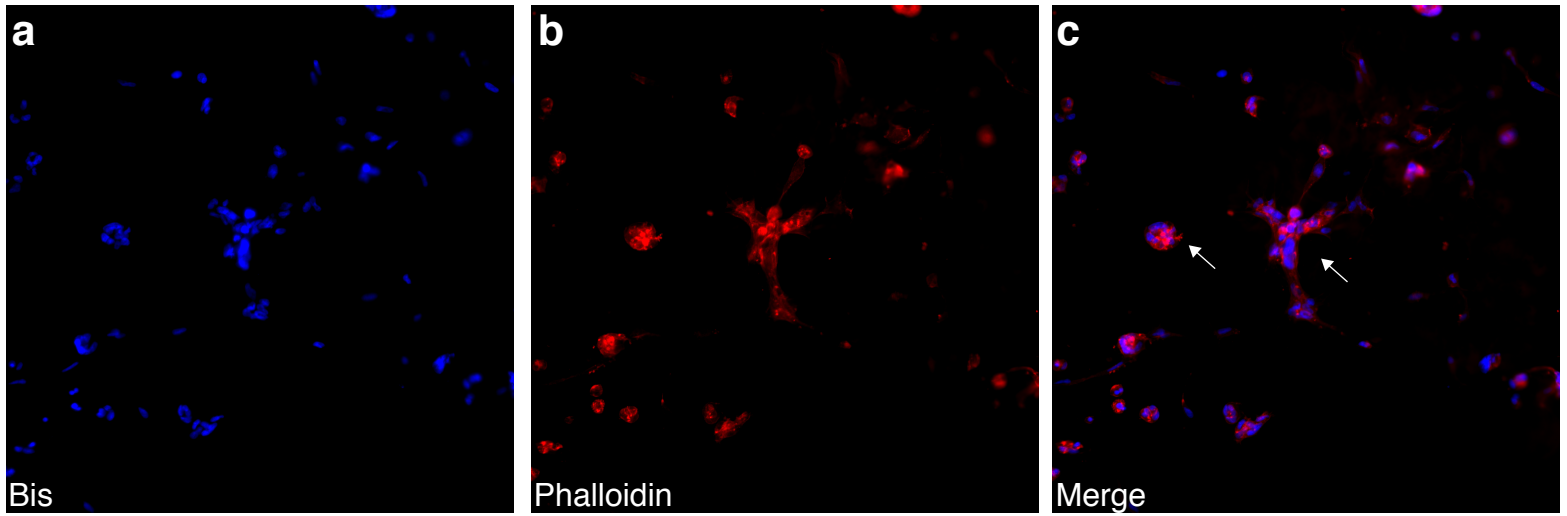
Supplemental Figure S1

RNA Sequencing analysis

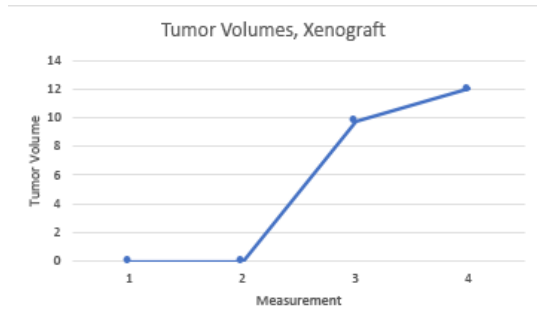
Name	/gene_synonym	2XSB RPKM	Tumor RPKM
MLANA	MART-1, MART1	0.251	0.07
PMEL	D12S53E, gp100, ME20, ME20-M, ME20M, P1, P100, PMEL17, SI, SIL, SILV	0.18	0.653
TERT	CMM9, DKCA2, DKCB4, EST2, hEST2, hTRT, PFBMFT1, TCS1, TP2, TRT	0.197	0.125

Supplemental Figure S2

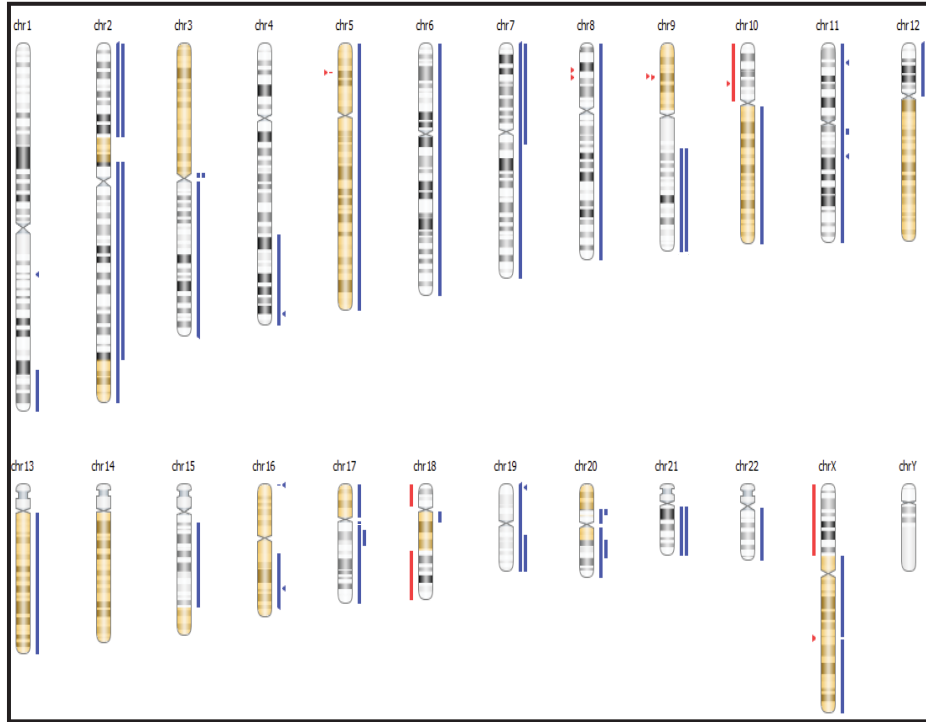
3D Culture of Giant only cells



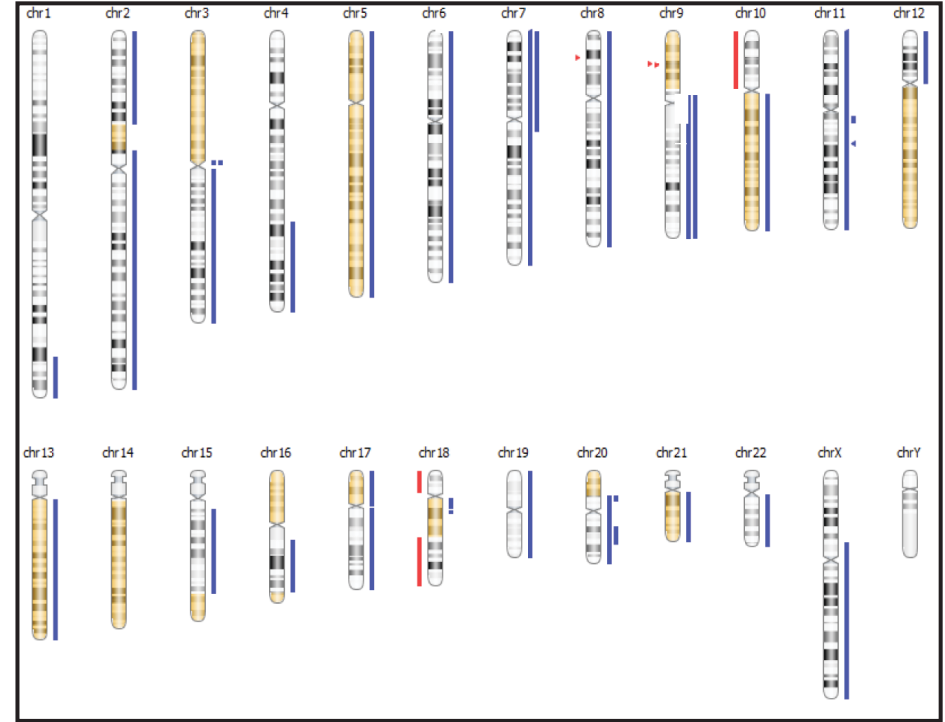
d Xenograft Growth Measurements



a Tumor

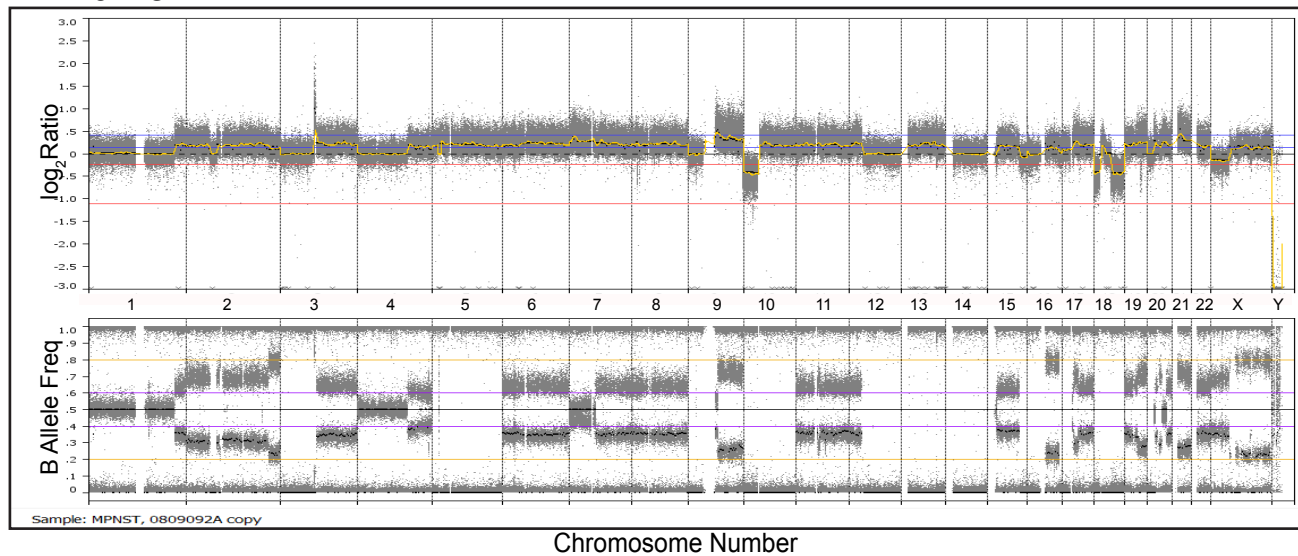


b Cell Line

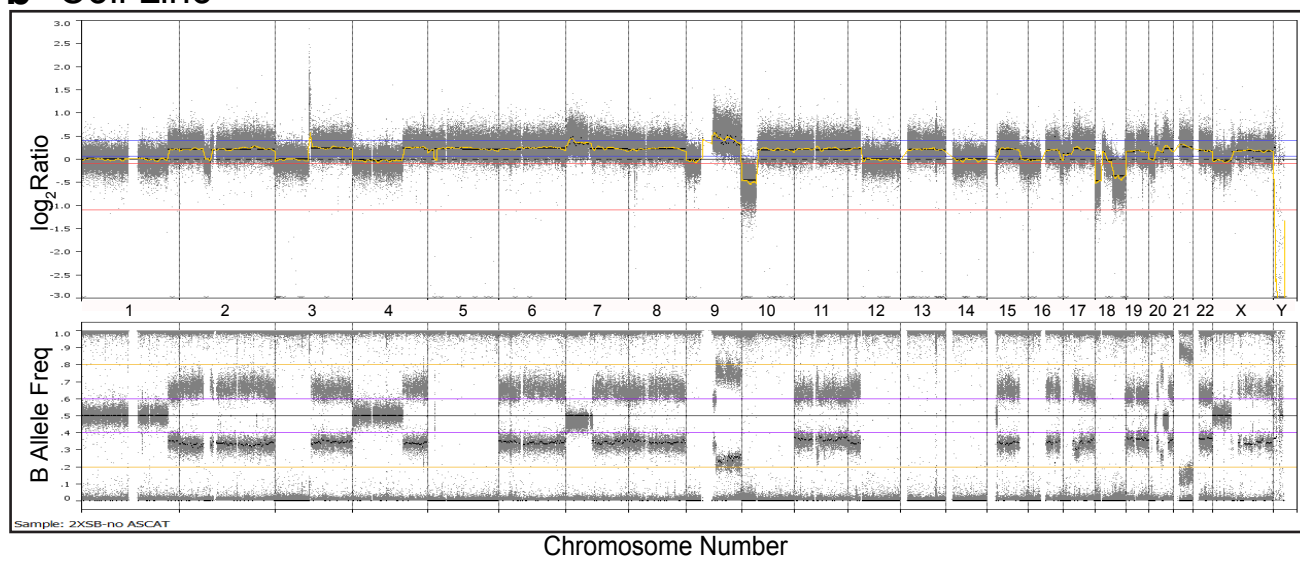


Supplemental Figure S4

a Tumor

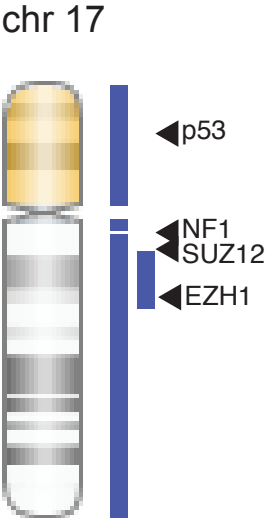


b Cell Line

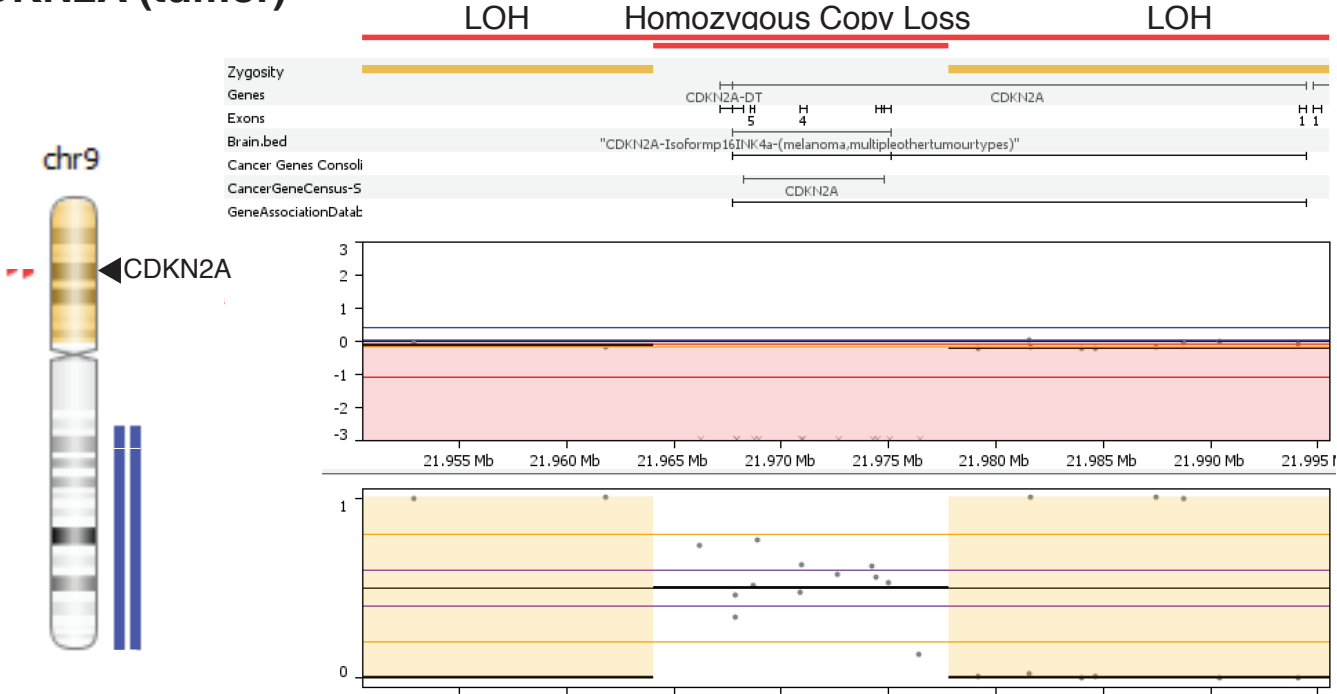


Supplemental Figure S5

a NF1 (tumor)

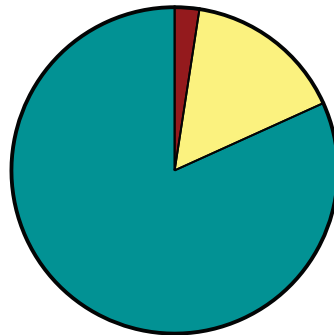


b CDKN2A (tumor)

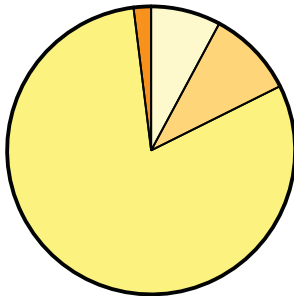
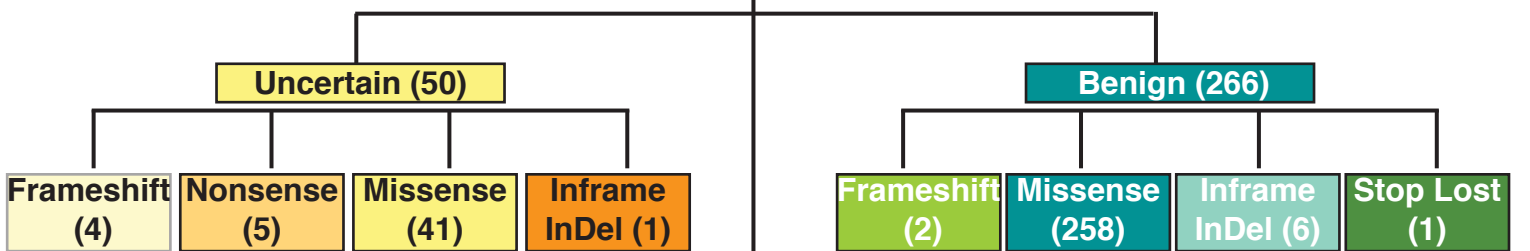


Supplemental Figure S6

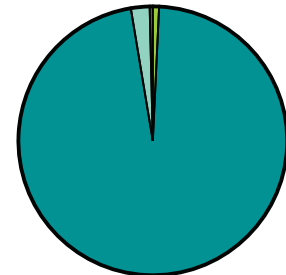
326 Variants in
Bushman Genes or
Known MPNST Genes



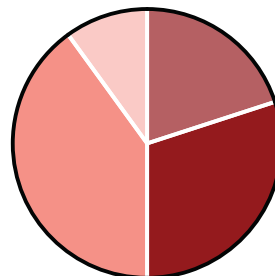
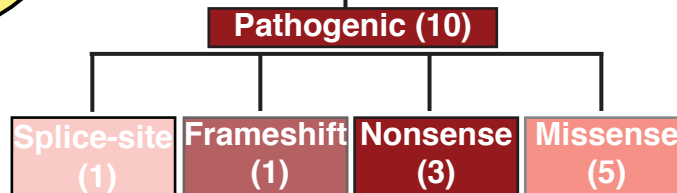
3.1% Pathogenic
15.3% Uncertain
81.6% Benign



7.8% Frameshift
9.8% Nonsense
80.4% Missense
2.0% Inframe InDel



0.75% Frameshift
96.3% Missense
2.25% Inframe InDel
0.37% Stop Lost

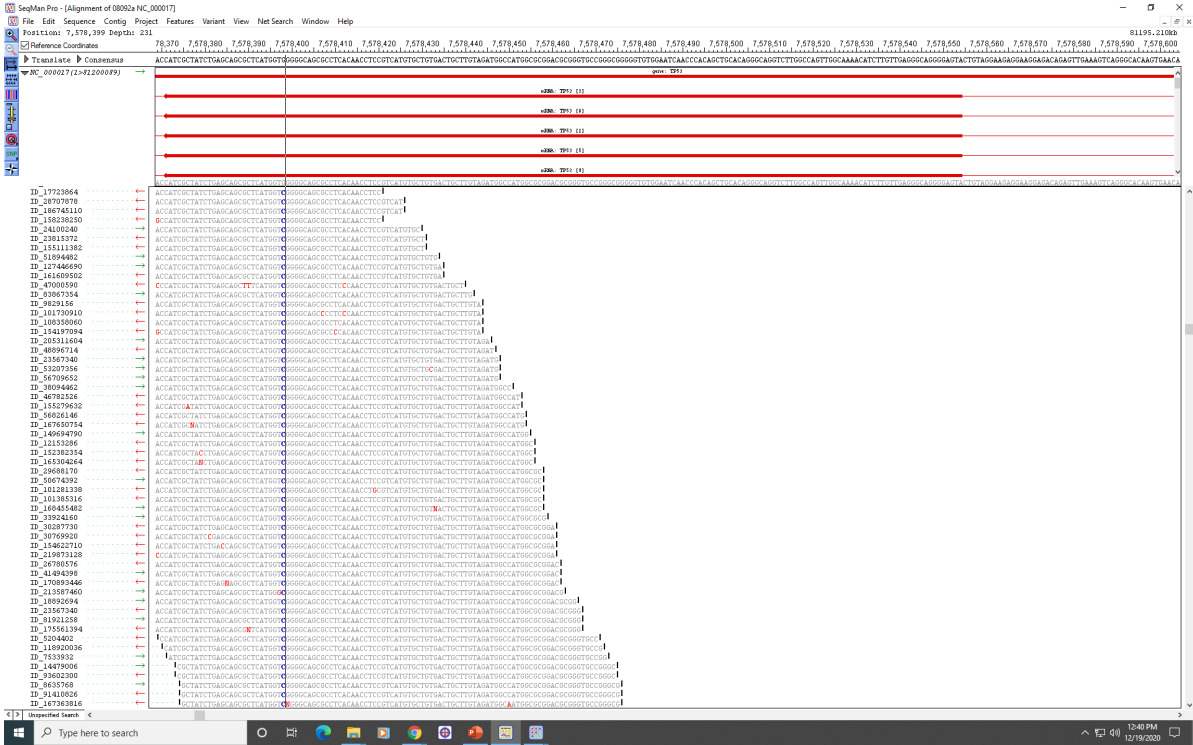


10.0% Frameshift
30.0% Nonsense
50.0% Missense
10.0% Splice-site

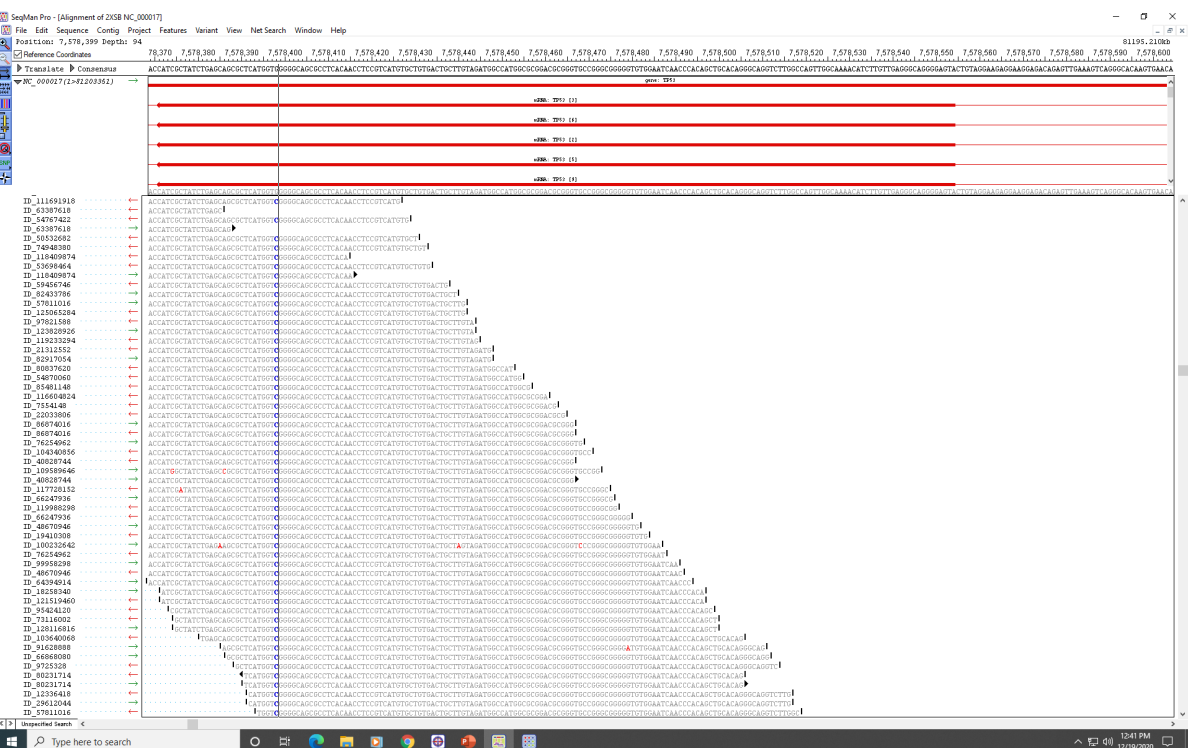
Supplemental Figure S7

WES assembly output: TP53, p.H178D

Tumor:



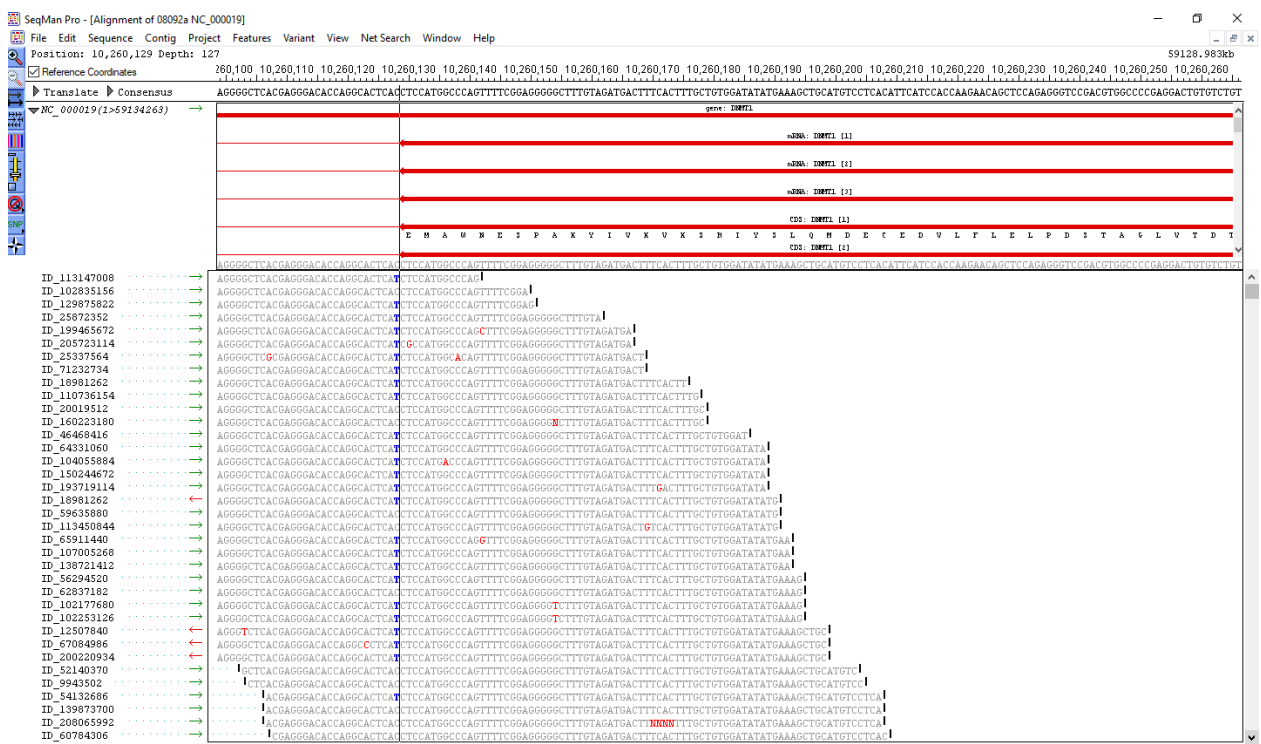
Cell line:



Supplemental Figure S7

WES assembly output: DNMT1, c.2586+1 G>A

Tumor:



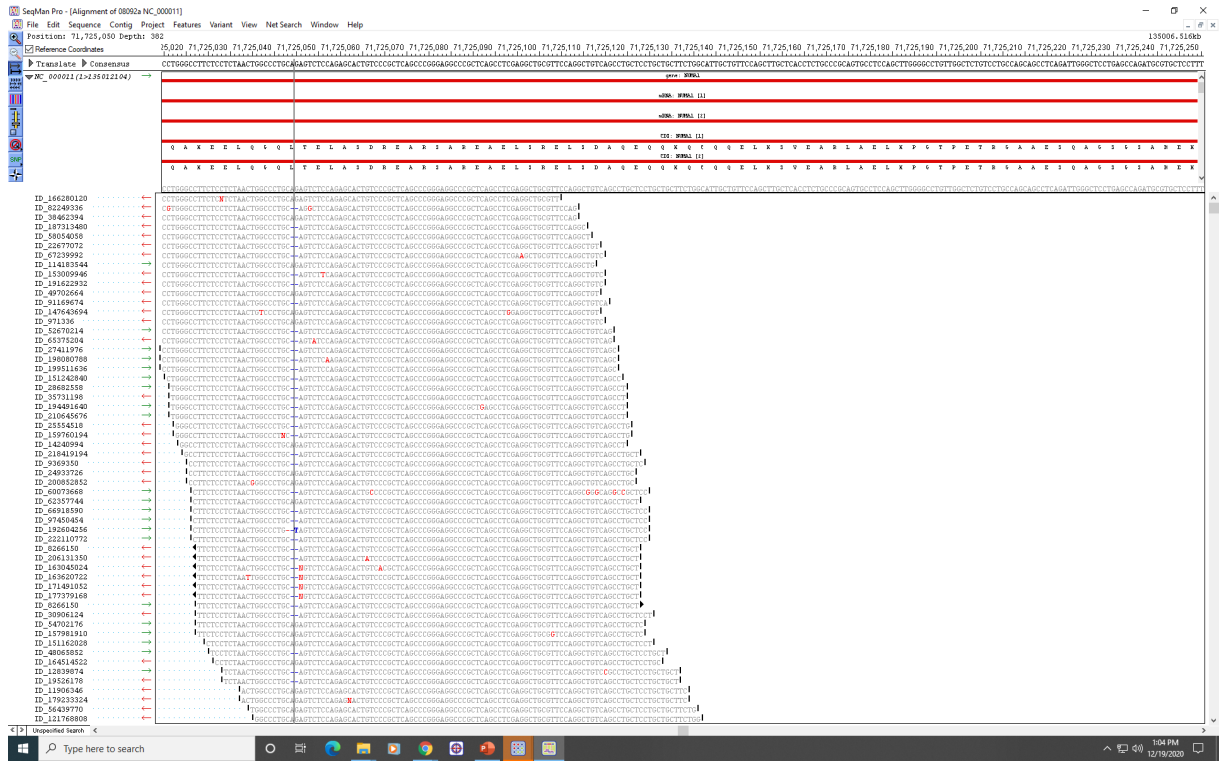
Cell line:



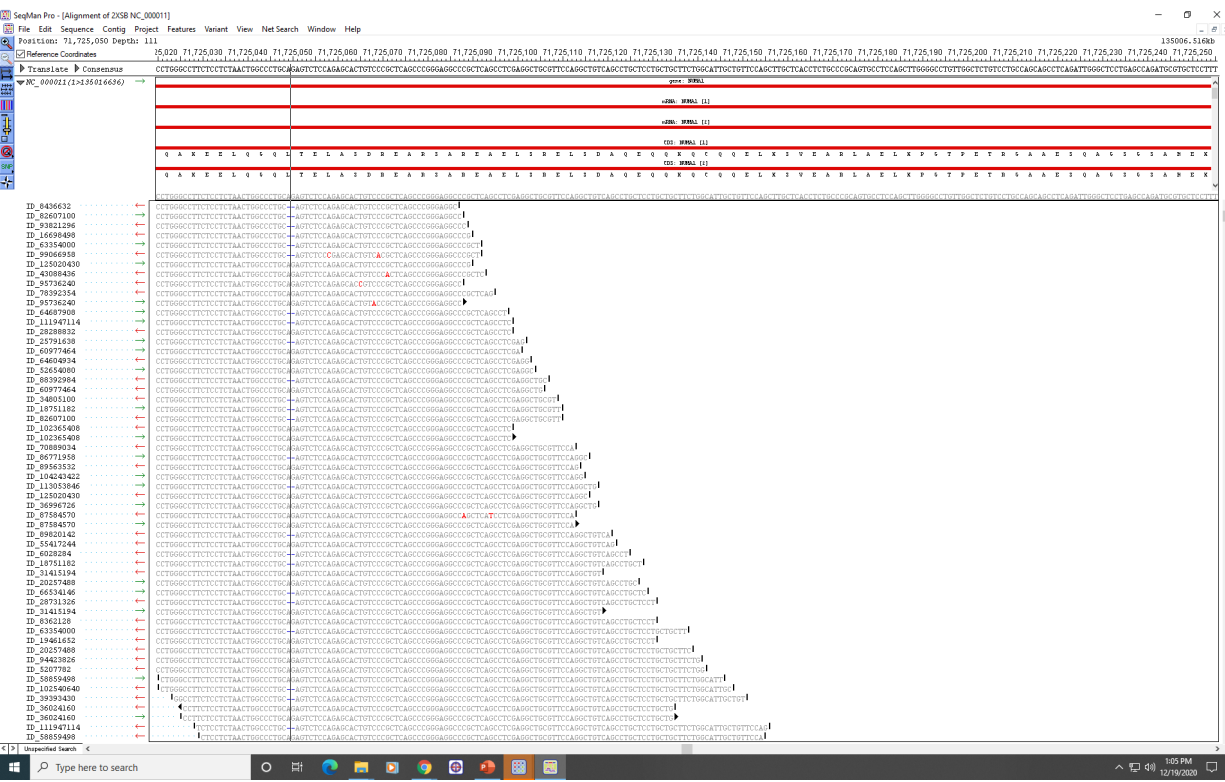
Supplemental Figure S7

WES assembly output: NUMA1, p.L1167fs

Tumor:



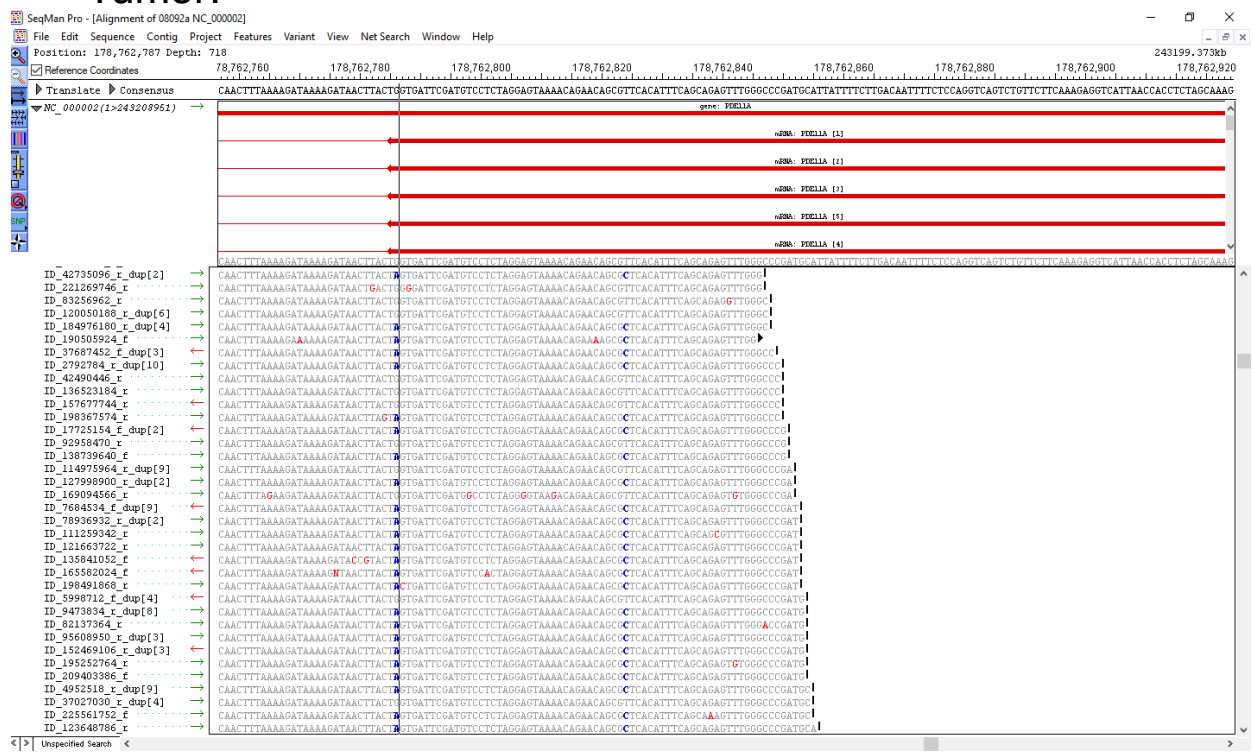
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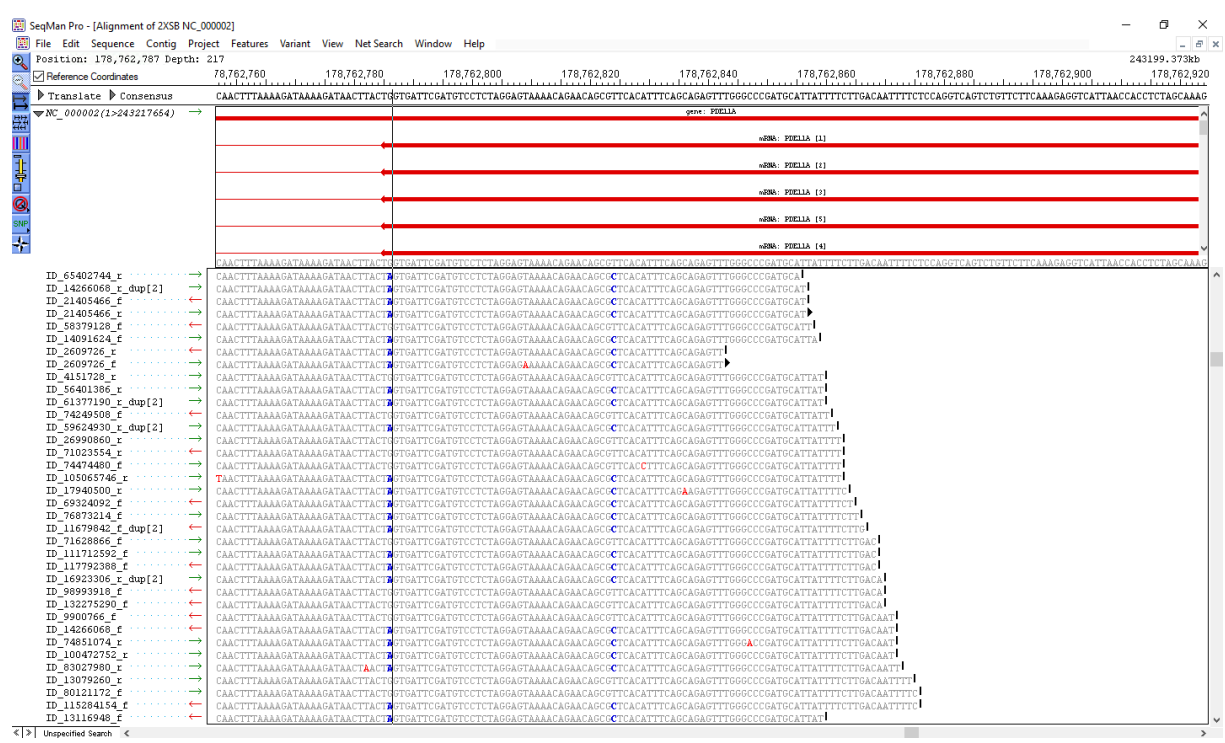
Supplemental Figure S7

WES assembly output: PDE11A, p.P434L

Tumor:



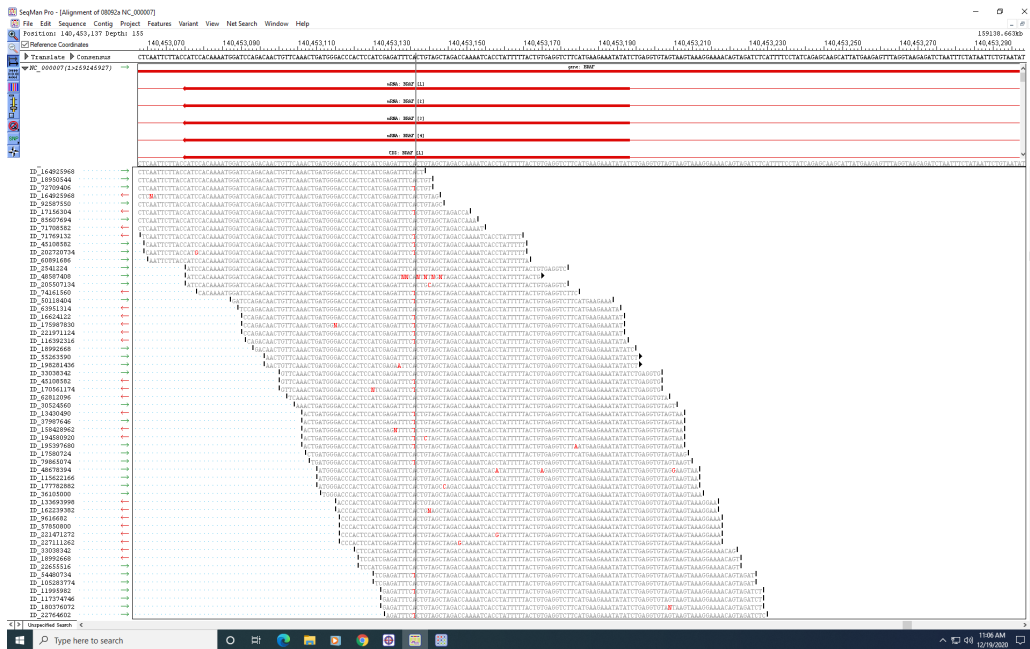
Cell line:



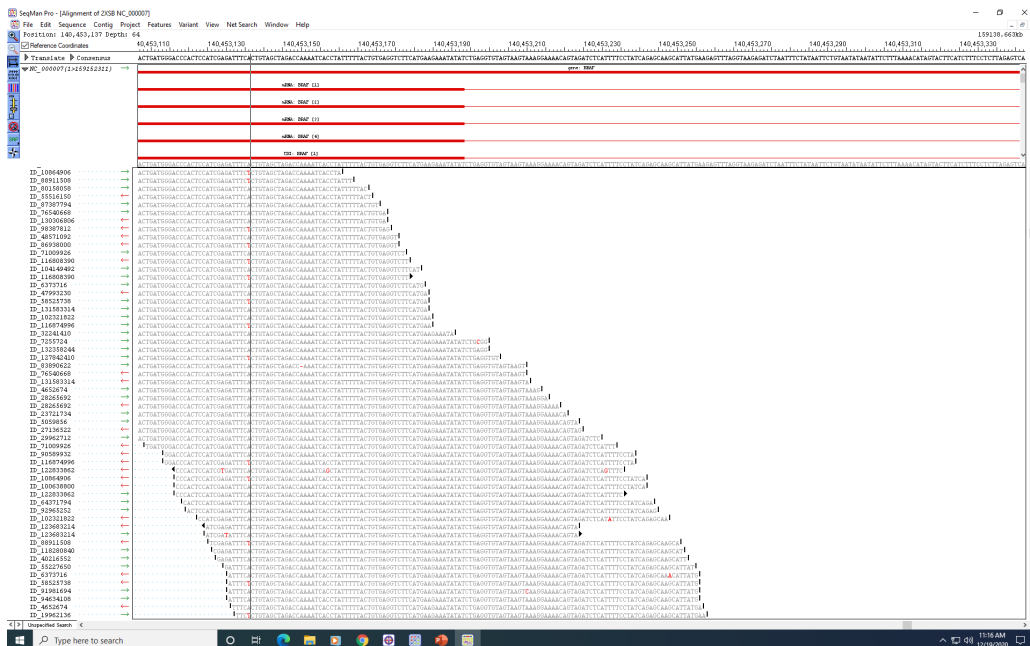
Supplemental Figure S7

WES assembly output: BRAF, p.V600E

Tumor:



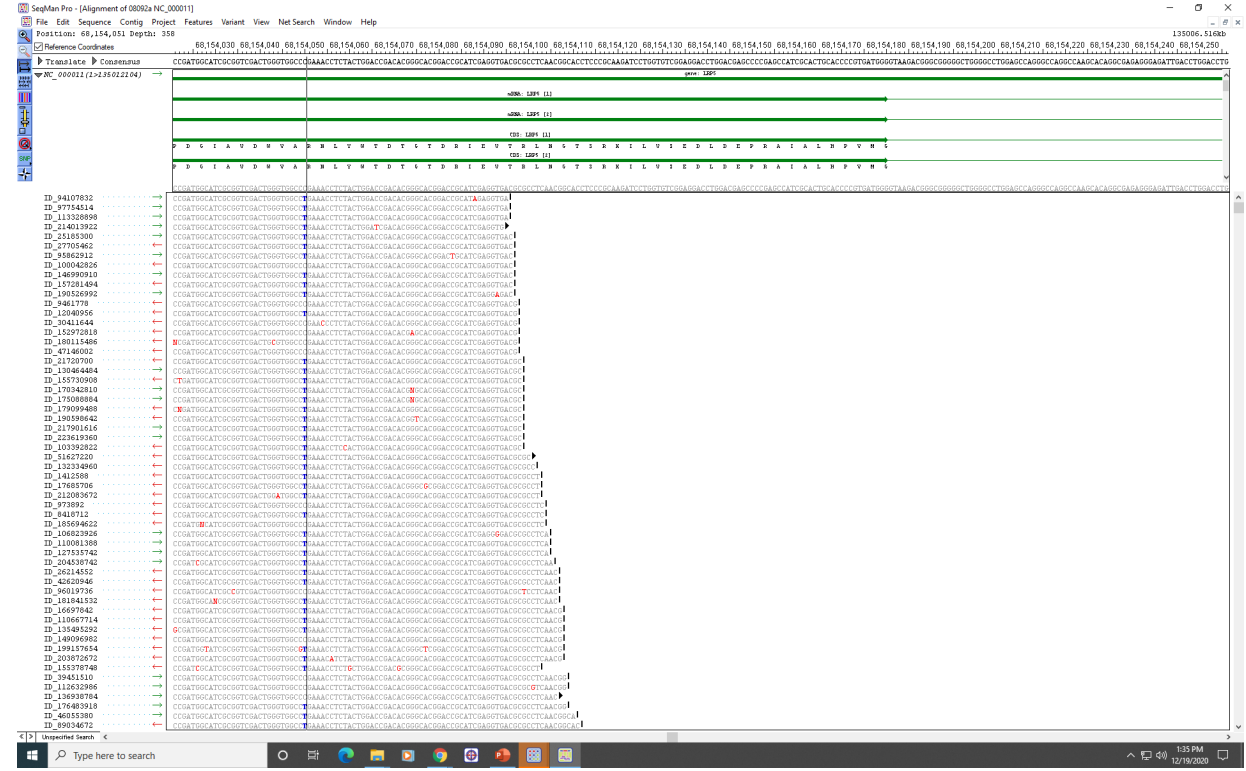
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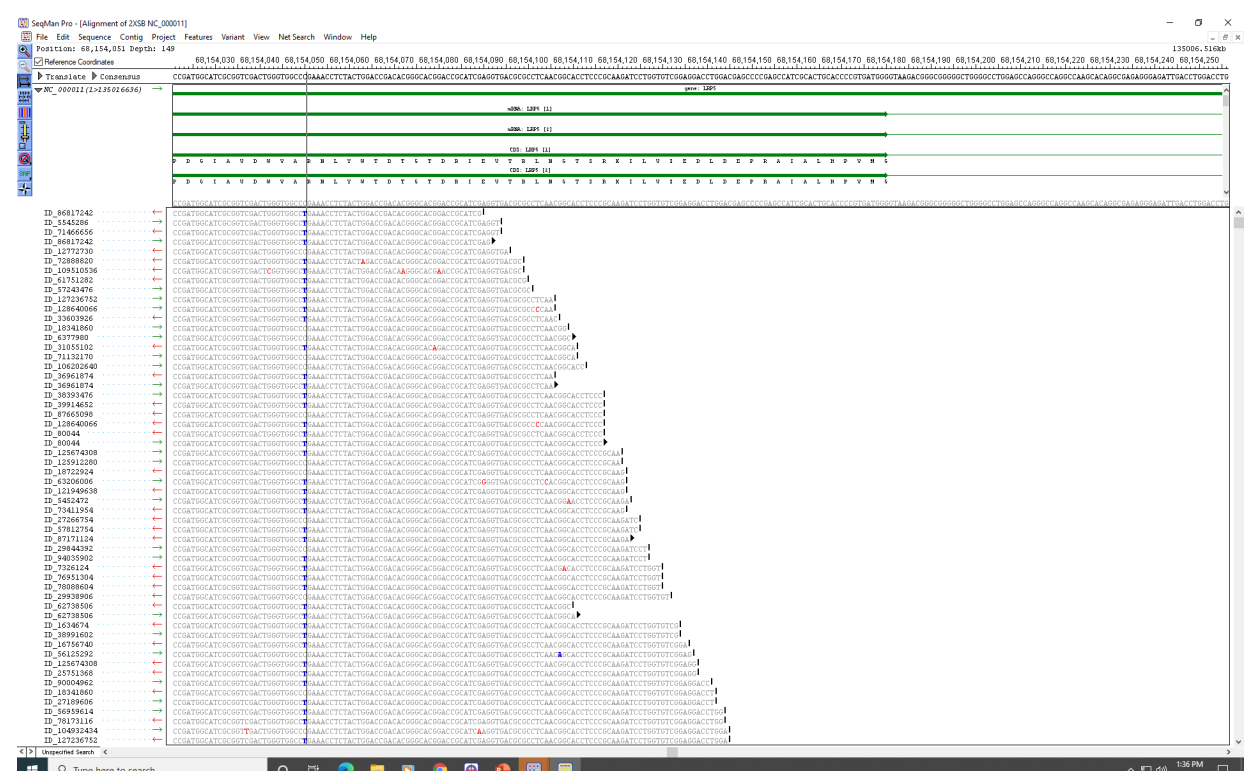
Supplemental Figure S7

WES assembly output: LRP5, p.R428*

Tumor:



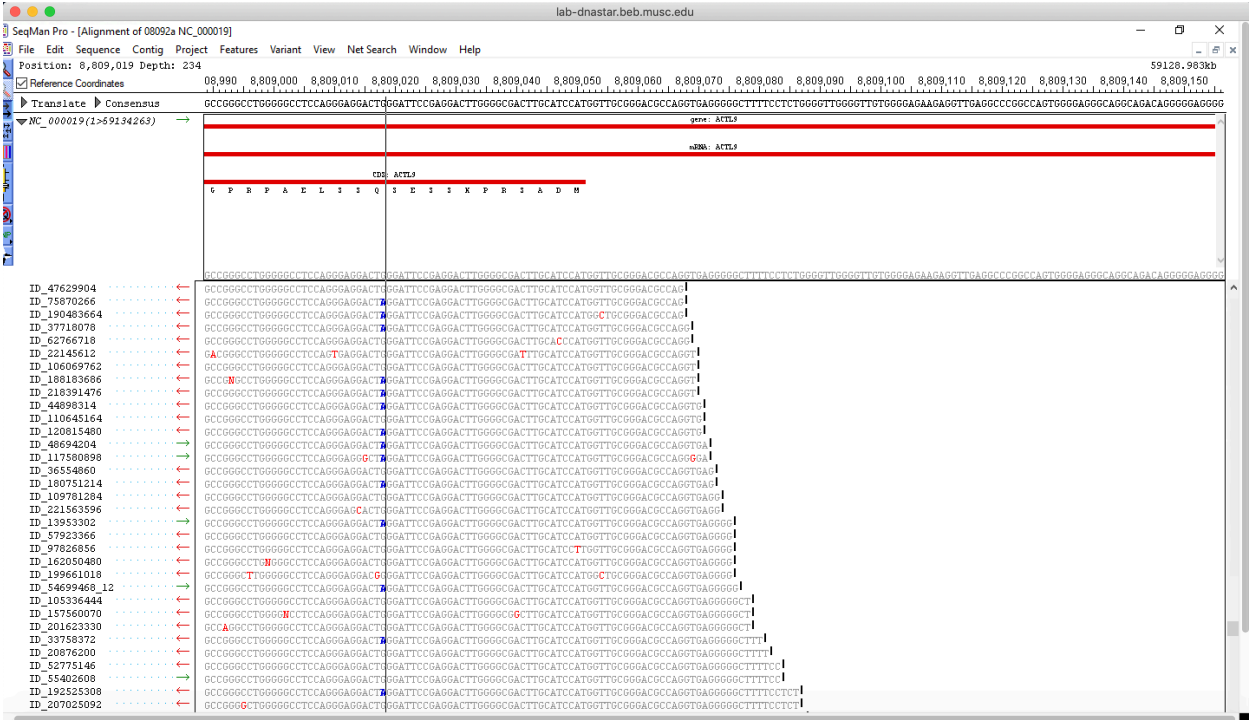
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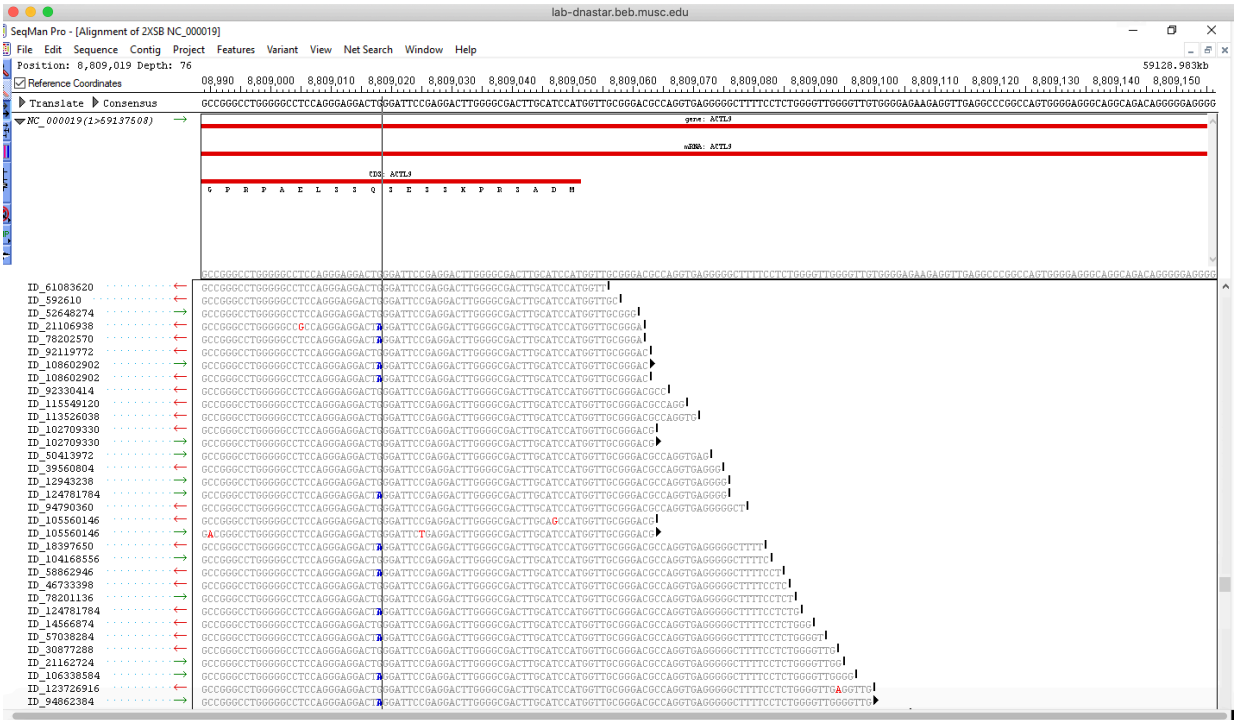
Supplemental Figure S7

WES assembly output: ACTL9, p.Q12*

Tumor:

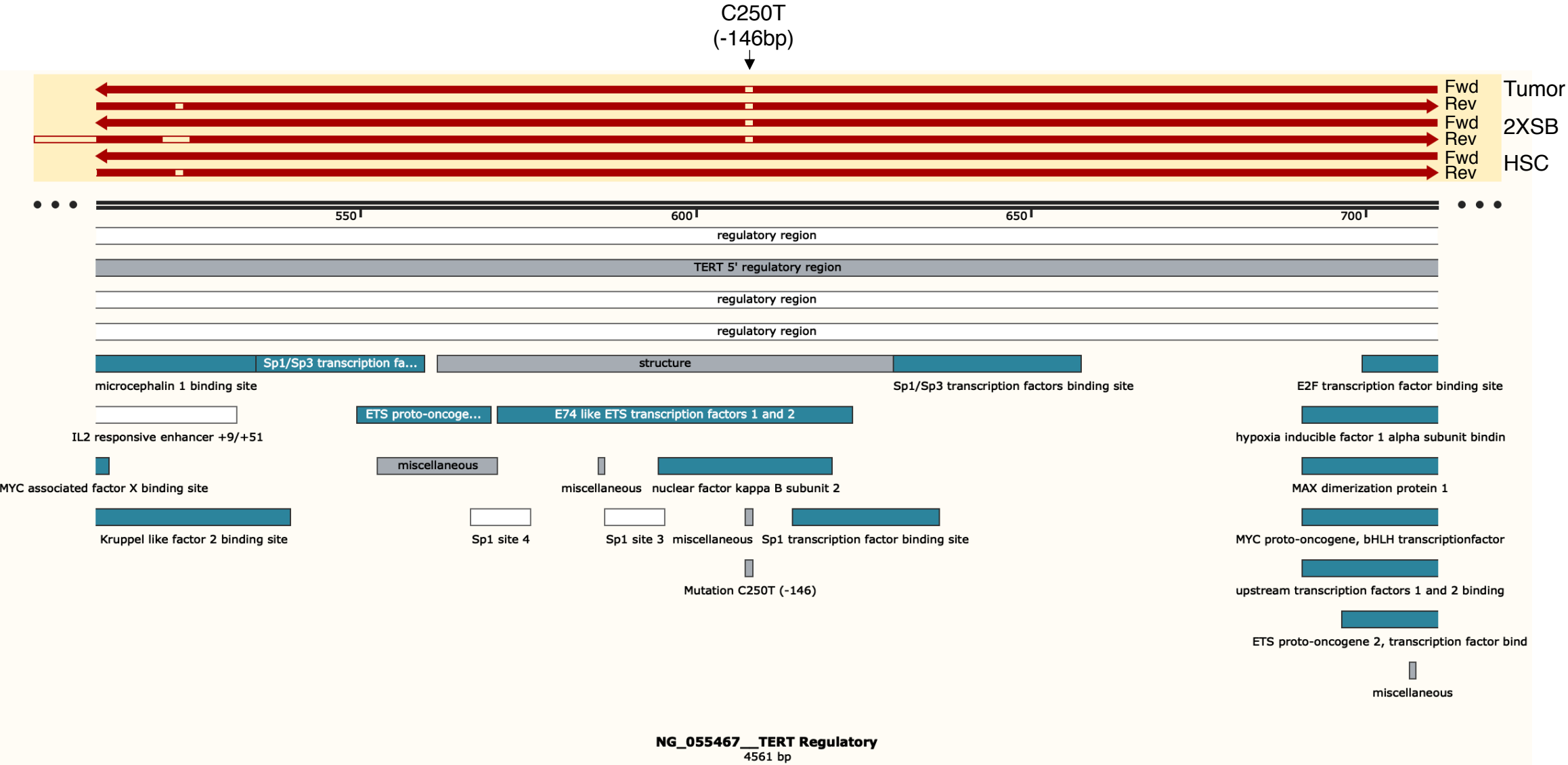


Cell line:



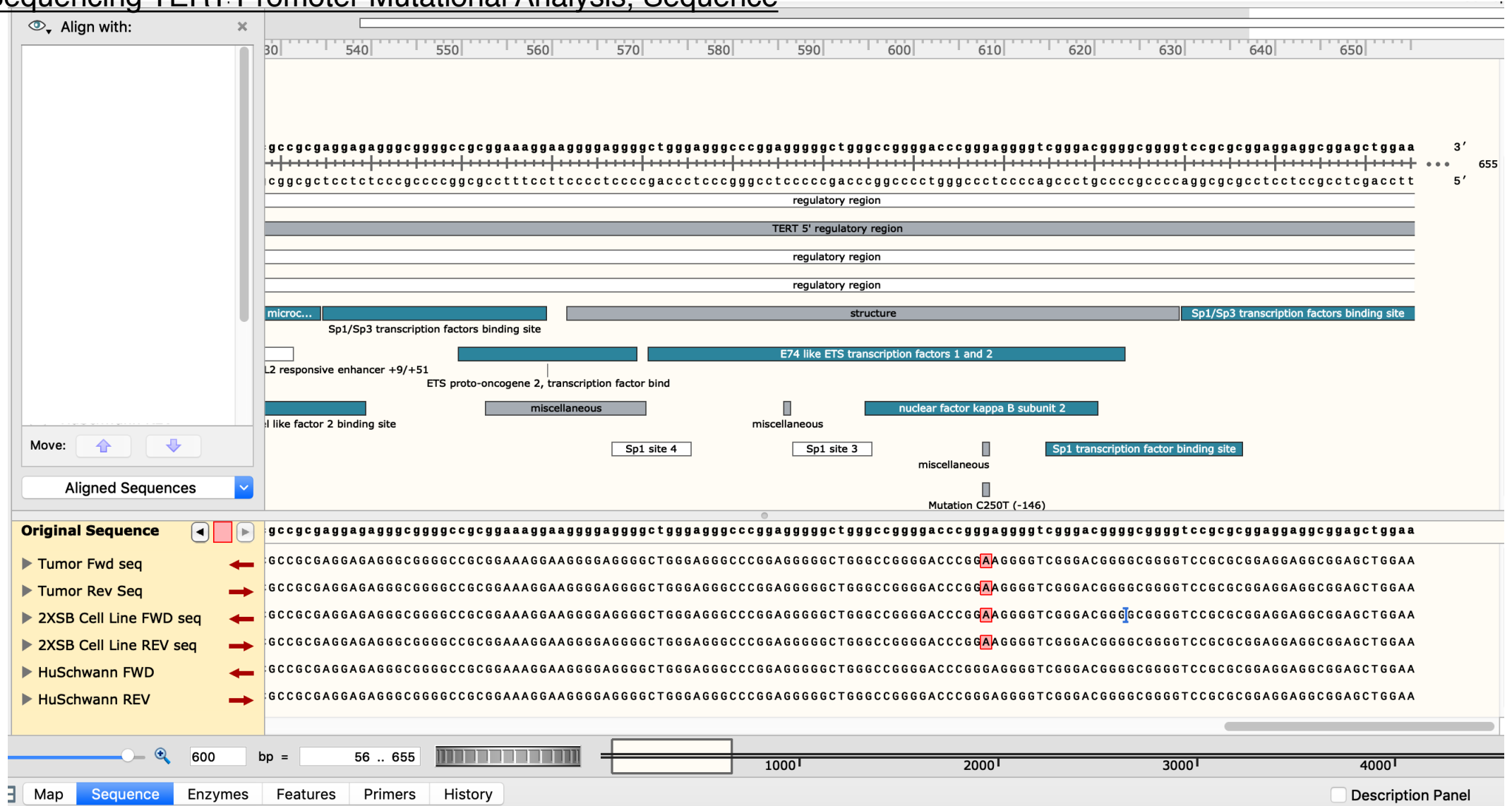
Supplemental Figure S8a

Sanger Sequencing TERT Promoter Mutational Analysis, Schematic



Supplemental Figure S8b

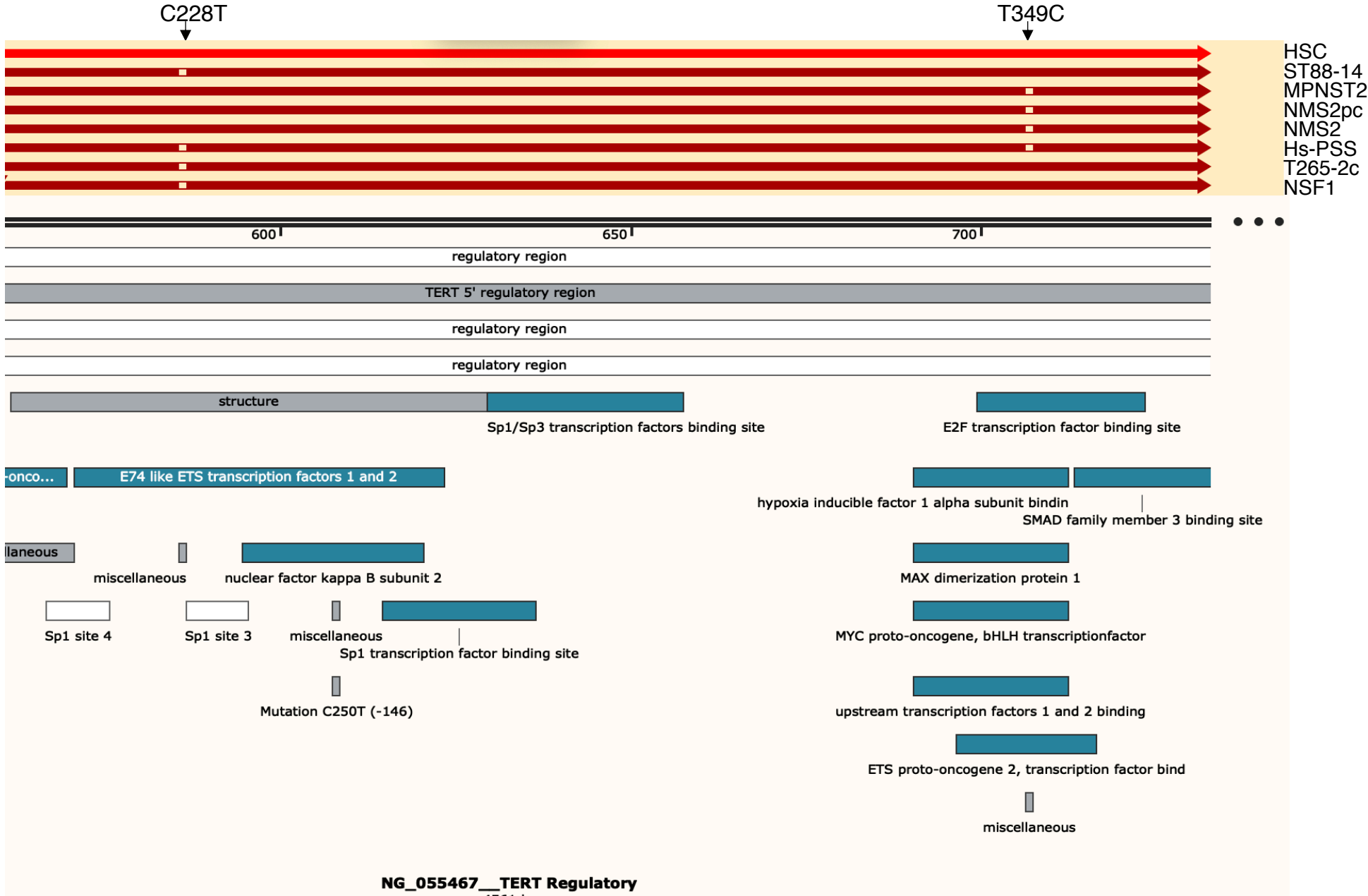
Sanger Sequencing TERT Promoter Mutational Analysis, Sequence



↓
C250T
(-146bp)

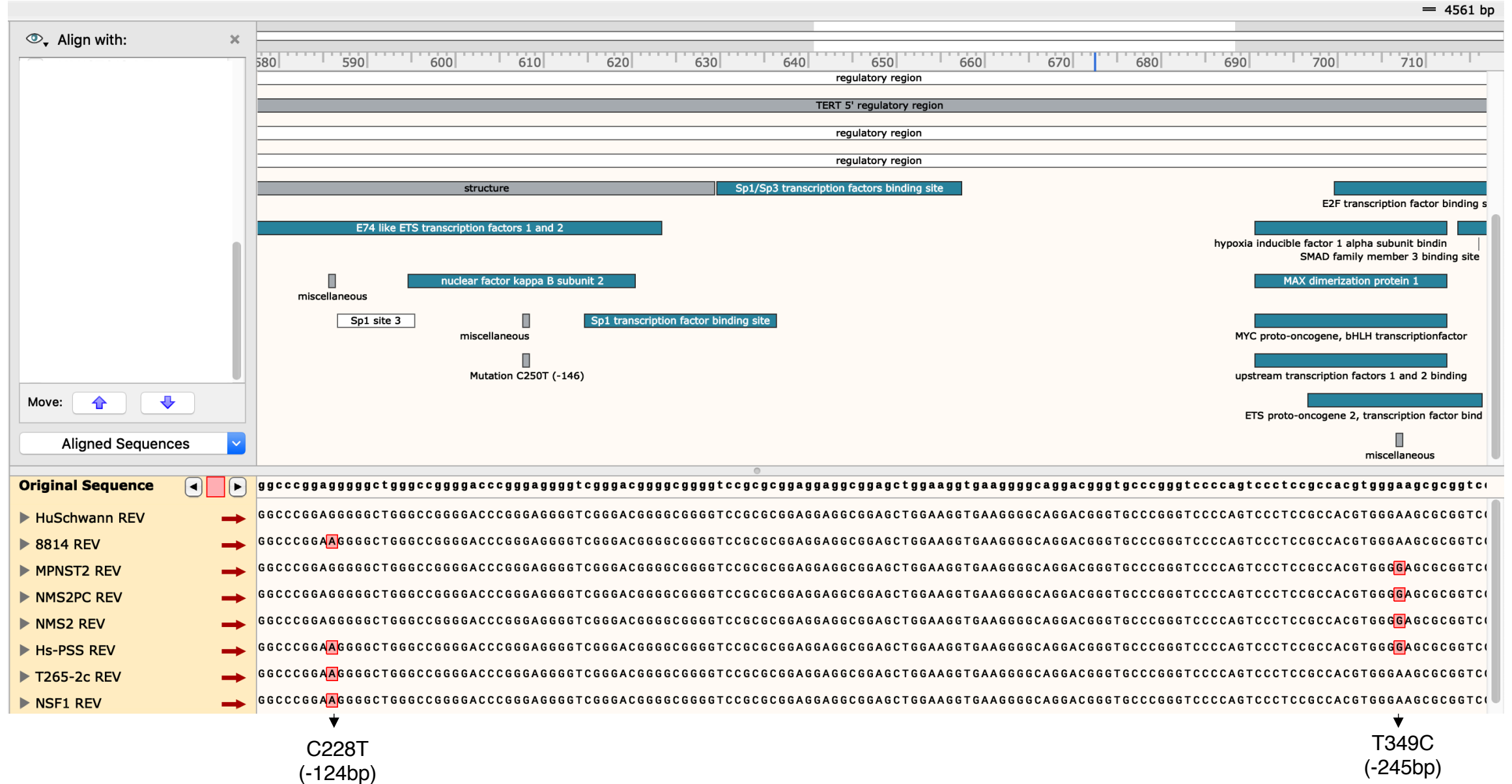
Supplemental Figure S8c

Sanger Sequencing TERT Promoter Mutational Analysis, Other MPNST Lines, Schematic



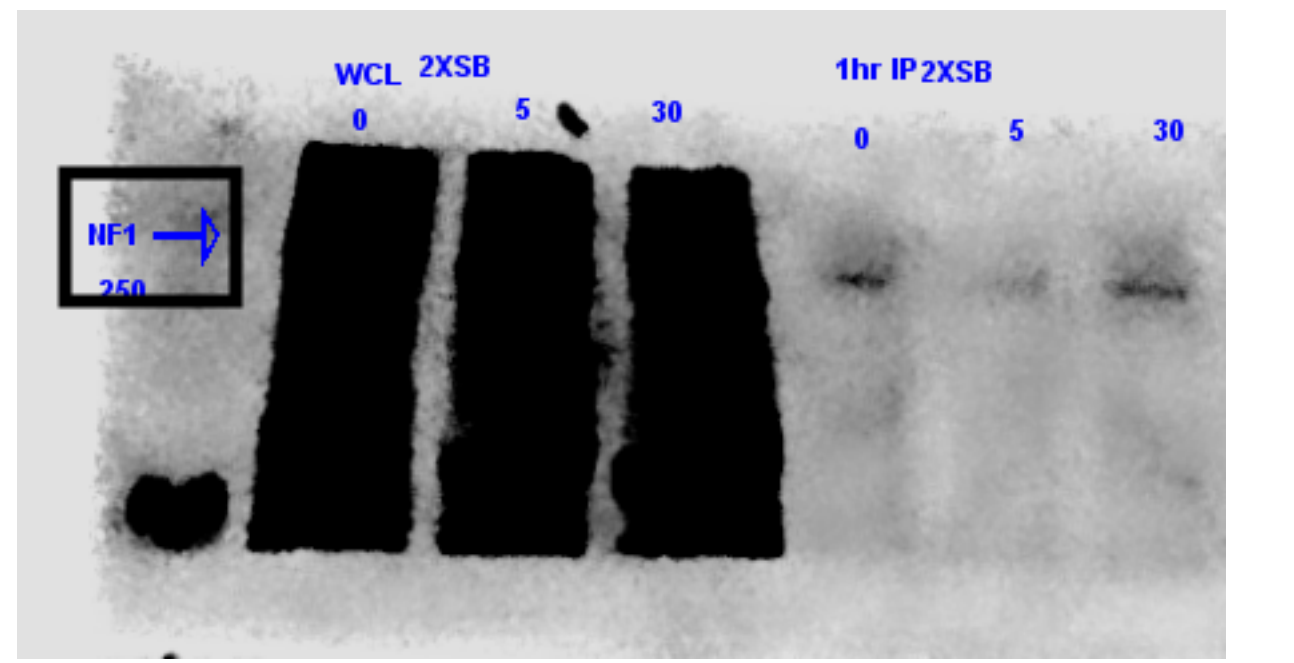
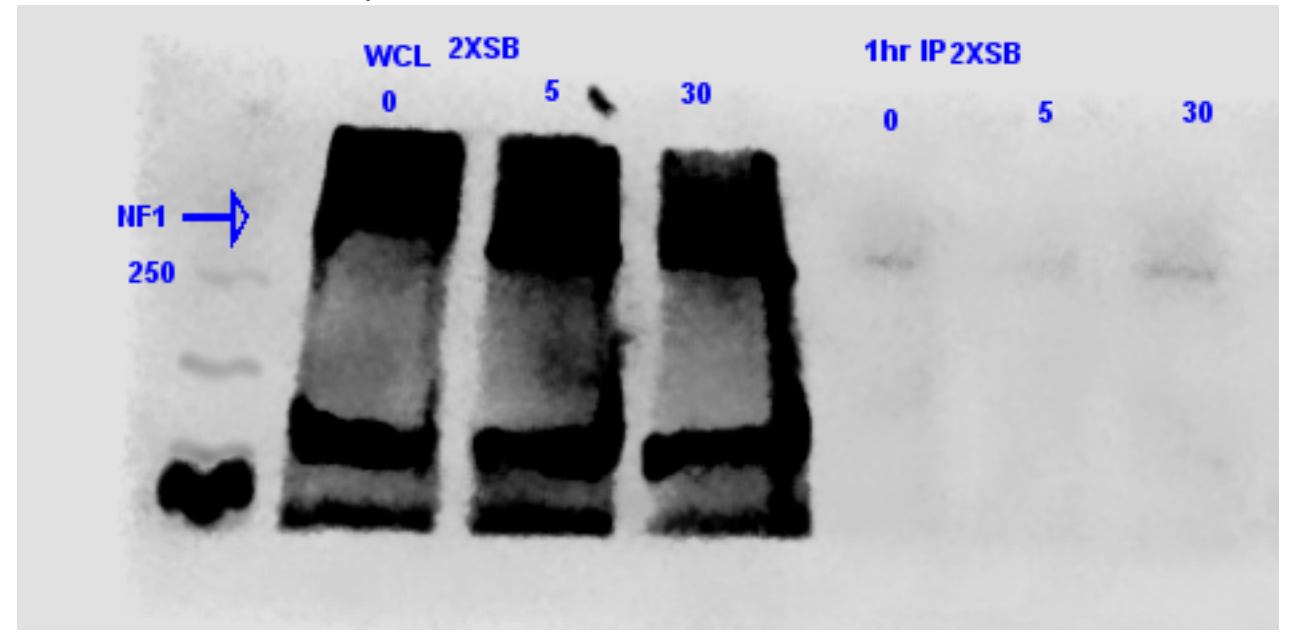
Supplemental Figure S8d

Sanger Sequencing TERT Promoter Mutational Analysis, Other MPNST Lines, Sequence



Supplemental Figure S9, Raw Images for western blots

Raf PD, NF1 immunoblot

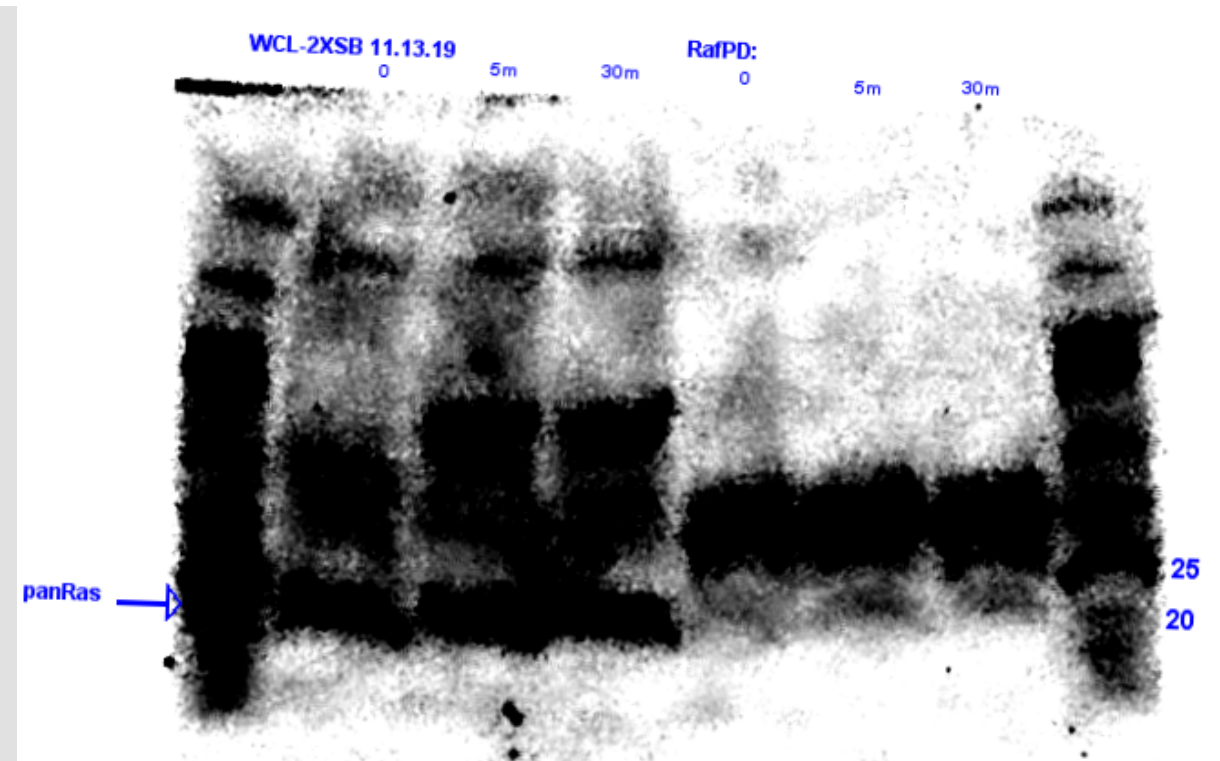
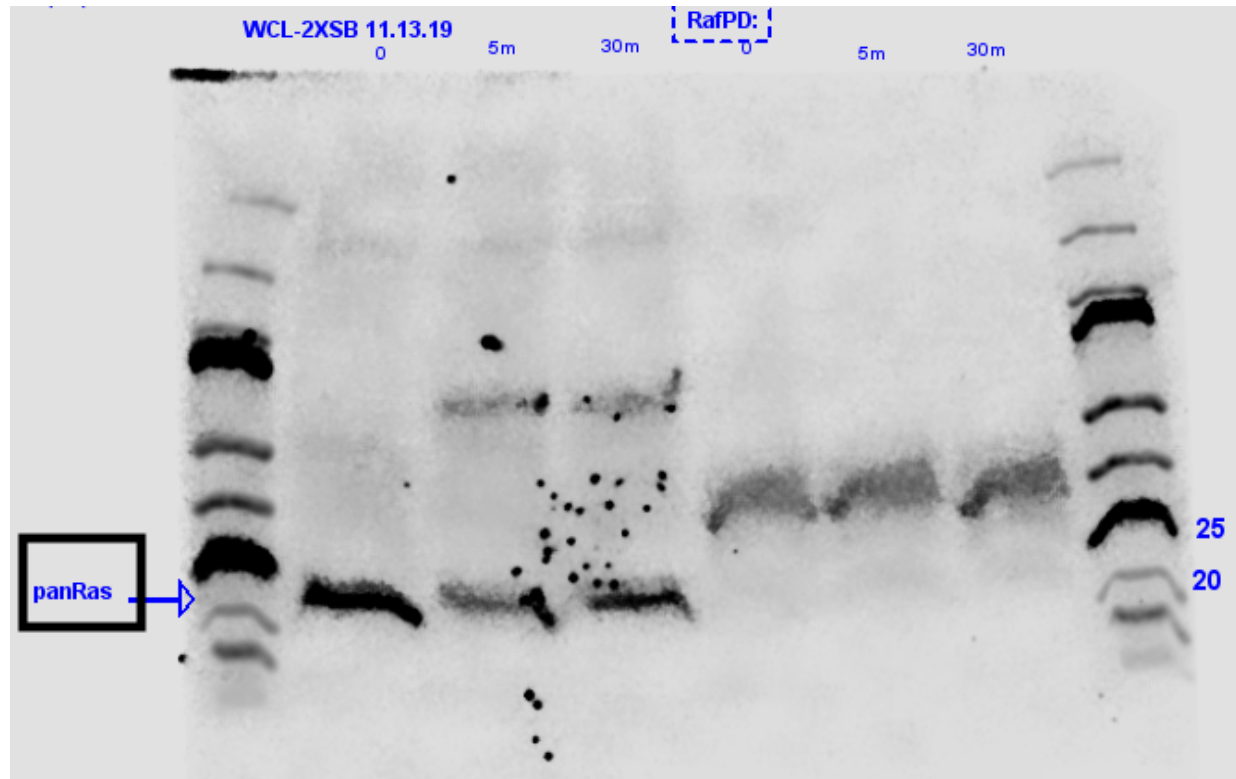


Supplemental Figure S9, Raw Images for western blots

Raf PD, Ras immunoblot

Light

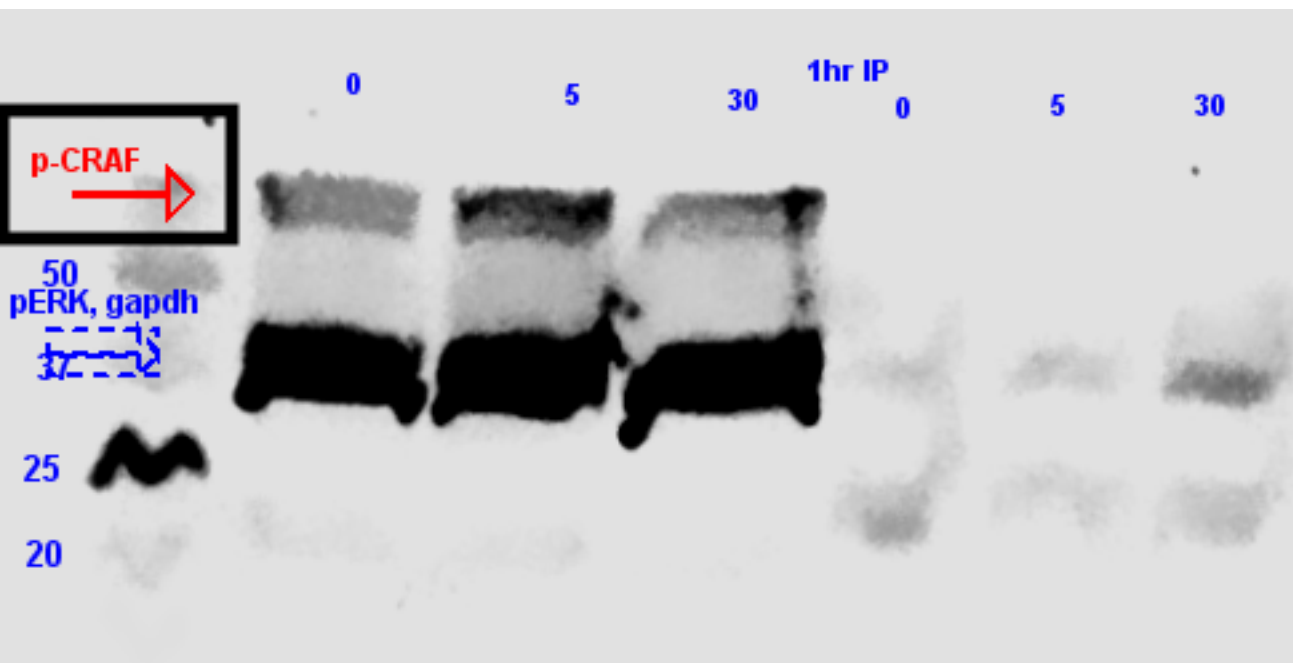
Dark



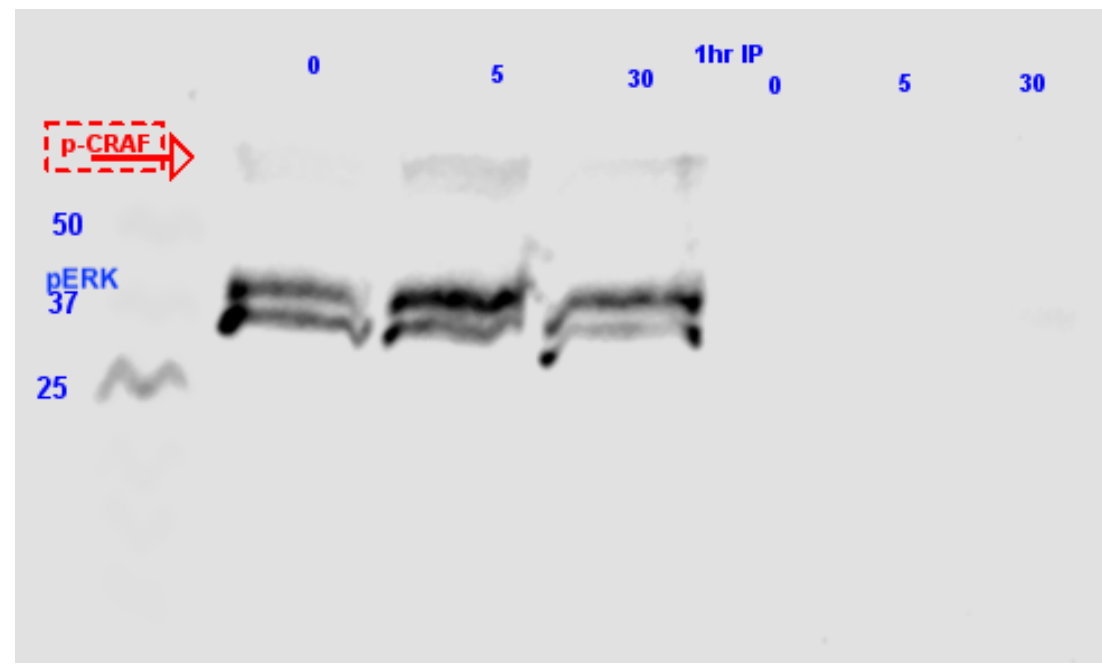
Supplemental Figure S9, Raw Images for western blots

Raf PD, CRAF, ERK immunoblot

dark

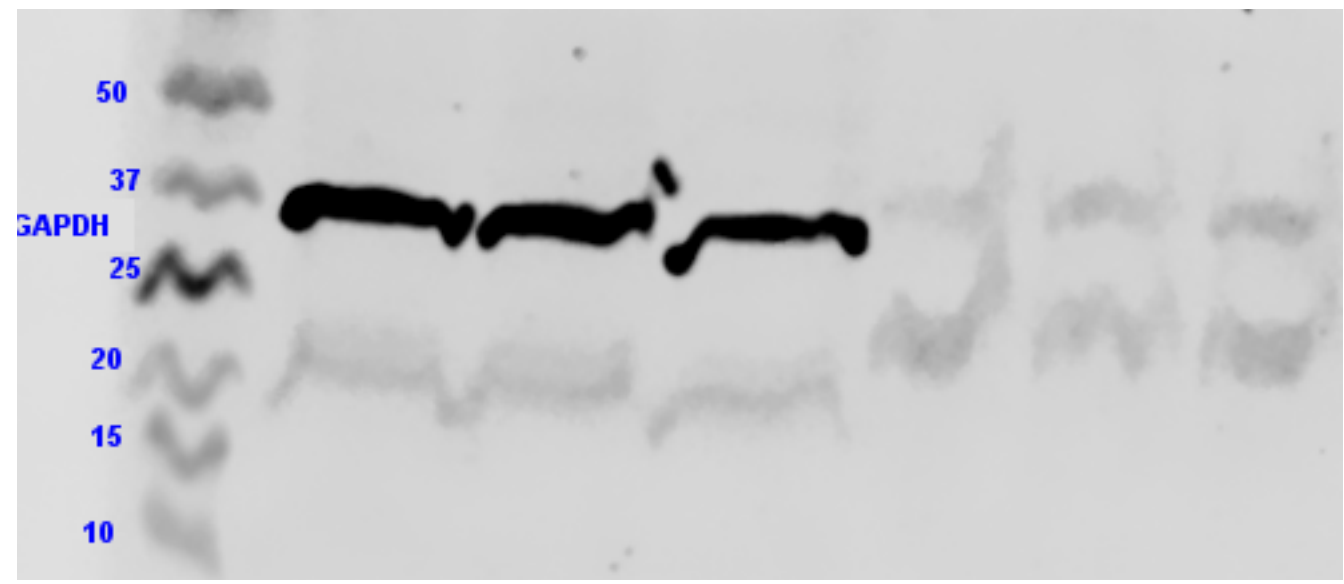


light

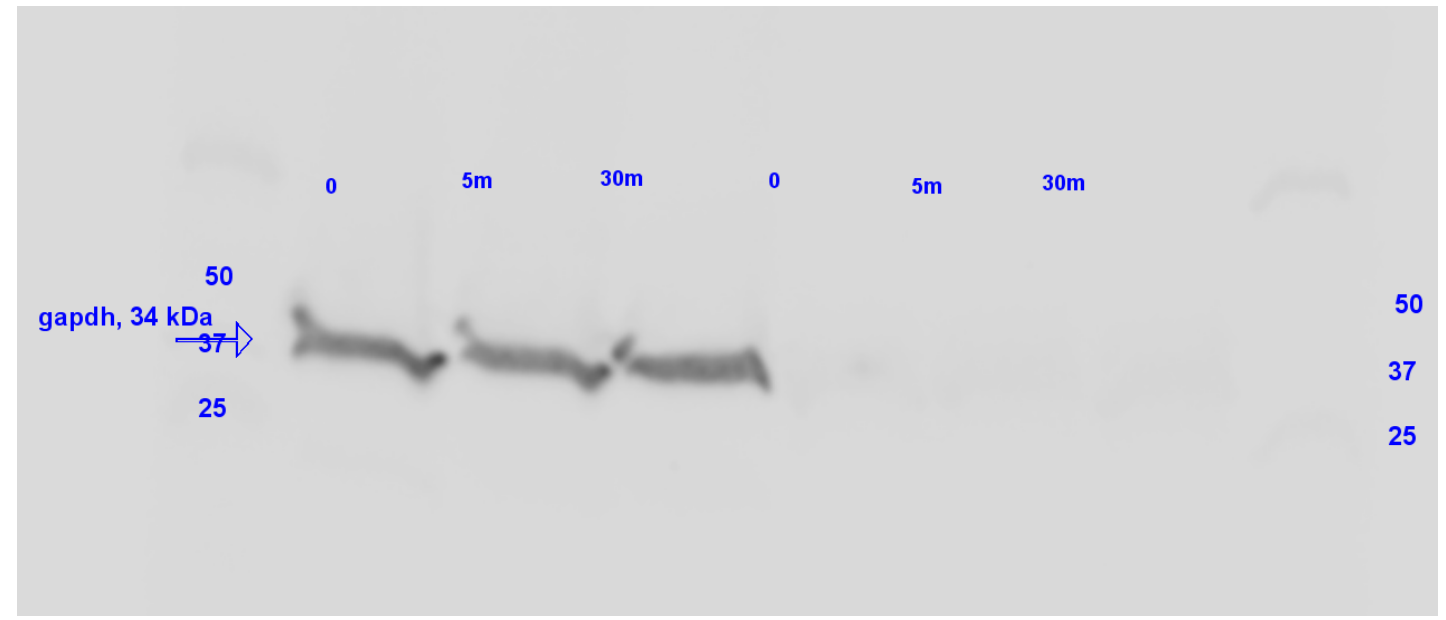


Supplemental Figure S9, Raw Images for western blots

Raf PD, gapdh immunoblot



dark



light

Supplemental Figure S9, Raw Images for western blots

Raf PD, total ERK immunoblot

