

Supplementary Reference

- [1] Kilpinen S, Autio R, Ojala K, Iljin K, Bucher E, Sara H, Pisto T, Saarela M, Skotheim RI, Björkman M, et al. (2008). Systematic bioinformatic analysis of expression levels of 17,330 human genes across 9,783 samples from 175 types of healthy and pathological tissues. *Genome Biol* **9**, R139.

Table W1. Oligonucleotide Primer Sequences for 5'RACE PCR.

Primer	Oligonucleotide Sequence (5'→3')	Ensembl Transcript	Exon
ETV1_R_GSP	GTTCTGCTGGGATGAGCCAGGAAGC	ENST00000430479	10
ETV1_F_IC	TCCCTCCATCGCAGTCCATACCAGA	ENST00000430479	8
ETV1_R_NGSP	AAGCCTTGTTGGTGGGAAGGGGATGT	ENST00000430479	9
ETV4_R_GSP	CAGGGACAACGCAGACATCATCTGG	ENST00000319349	10
ETV4_F_IC	CATGGCGAGCAGTGCCTTTACTCCA	ENST00000319349	6
ETV4_R_NGSP	GGCGAAGTCCGCTCTGTTCTGTTTGA	ENST00000319349	8
ETV5_R_GSP	CTCTCAGGCACAACACAAGTGTCTGTC	ENST00000306376	10
ETV5_F_IC	CCCTTCCCTCCTCAGCCAGGAGTTC	ENST00000306376	8
ETV5_R_NGSP	TGGCTGCTGGAGAAATAACCCCTCT	ENST00000306376	9

Table W2. Oligonucleotide Primers Used for RT-PCR.

Primer	Oligonucleotide Sequence (5'→3')	Ensembl Transcript	Exon
C15orf21_S	TCTTTTGGTTGGTGATTTTGATGA	ENST00000409454	1
SLC45A3_S	GGAACCAGCCTGCACGC	ENST00000367145	1
UBTF_S	TTGACCCCGGGTTGCC	ENST00000393606	2
TMPRSS2	TAGGCGCGAGCTAAGCAGGAG	ENST00000332149	1
OR51E2_S	ACCACCACCAGGAATTGGC		
EST14_S	GAAGAGAAGAGAATTCACAGAGTAAAA		
HERVK17_S	TTTCCACACTCTCATTCCCGGA		
ETV1_AS1	TCGTTACAATTTCTCCCACGCT	ENST00000430479	4
ETV1_AS2	GCTTAAAGCCTTGTGGTGGG	ENST00000430479	9
ETV4_AS	GGAGTAAAGGCACTGCTCGC	ENST00000319349	6

Table W3. BAC Probes Used to Assess Genomic Rearrangements of ETS Transcription Factors and Novel 5' Fusion Partners.

Gene Symbol	5' Probe (Red)	3' Probe (Green)
<i>ETV1</i>	RP11-643C13	RP11-790J2
<i>ETV4</i>	RP11-436J4	RP11-831F13
<i>OR51E2</i>	CTC-775N13	NA
<i>Chr14 (q13.3-21.1)</i>	RP11-945C4	NA
	RP11-666J24	

NA indicates not applicable.

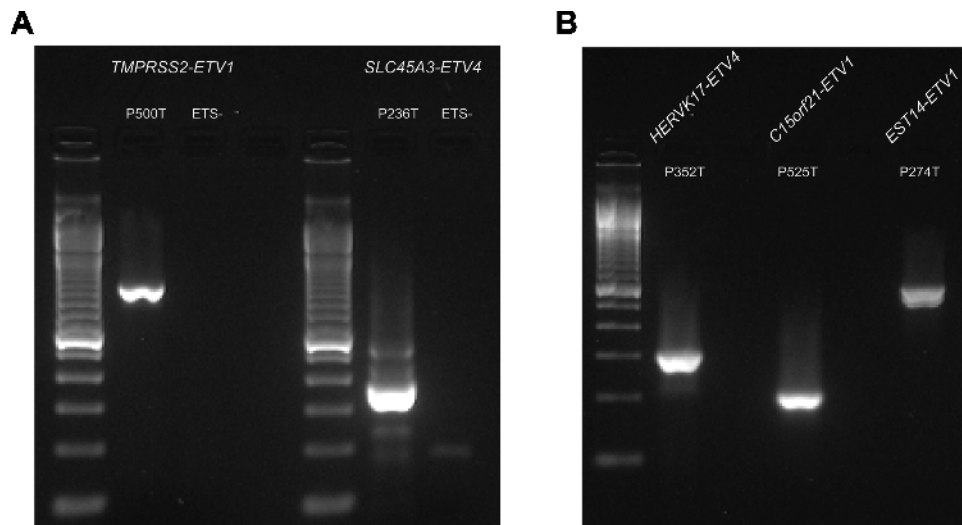


Figure W1. RT-PCR screening of gene fusions involving known 5' fusion partners. Detection of *TMPRSS2-ETV1* and *SLC45A3-ETV4* fusion transcripts in PCAs P500T and P236T, respectively (A). RT-PCR validation of 5'RACE findings of gene fusions involving known 5' partners (B).

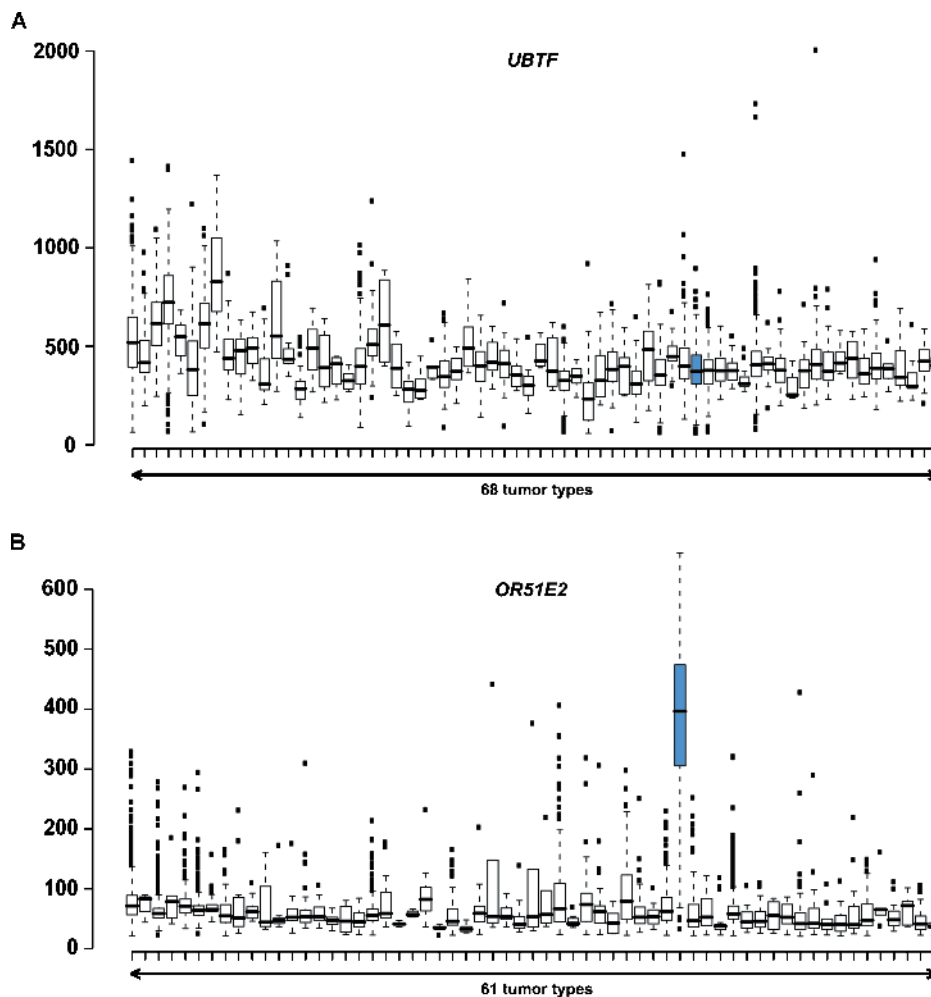


Figure W2. Expression of *UBTF* and *OR51E2* in different tumor types. The plots representing *UBTF* (a) and *OR51E2* expression (b), respectively, were obtained from the publicly available GeneSapiens database [1]. The blue box represents PCAs.