

Table S1. Probes sets used for RT-qPCR analysis.

Gene name	Taqman gene expression assay Code
<i>KEAP1</i>	Hs00202227_m1*
<i>AKR1C1</i>	Hs04230636_sH*
<i>NQO1</i>	Hs02512143_s1*
<i>TXN1</i>	Hs01555214_g1*
<i>RPLPO</i>	4326314E*

*Taqman gene expression assay from Life Technologies, Thermo Fisher Inc.

Table S2. Primers/probes sets used for qMSP assays.

Primer/Probe name	Primer/Probe sequence (5' → 3')	Annealing Temperature (°C)
KEAP1-meth_forw	TGCGGTCGTCGGATTACGAGGTCG	66
KEAP1-meth_rev	CTTCCATCTCCCGATTTTCGTTAC	
KEAP1-meth_probe	FAM-GTGGCGCGTAGTTTCGCGAG-TAMRA	55
ACTB-forw	TGGTGATGGAGGAGGTTTAGTAAGT	
ACTB-rev	AACCAATAAAACCTACTCCTCCCTTAA	
ACTB-probe	FAM-ACCACCACCCAACACACAATAACAAACA TAMRA	

Table S3. Primers sets used for *KEAP1* and *NFE2L2* genes mutation analysis.

Primer name	Primer sequence (5' → 3')	Annealing Temperature (°C)
KEAP1-Ex-3aF	TTGCAAAACGAGGCCCGGC	60
KEAP1-Ex-3aR	TGCACTCAGTGGAGGCGTAC	
KEAP1-Ex-3bF	CTGCAGTCACAGTGCCTGA	60
KEAP1-Ex-3bR	ACCTTGTGGGCCATGAACTG	
KEAP1-Ex-3cF	GCCAGCAGCTGTGTGACGTC	60
KEAP1-Ex-3cR	ACTTCTCGCCCATGGAGATG	
KEAP1-Ex-3dF	CCAAGGTCATGGAGCGCCTC	60
KEAP1-Ex-3dR	TGGTCCTTCTCCTGACACTG	
KEAP1-Ex-4aF	GTGACTGGAGAGTCAGCCCG	60
KEAP1-Ex-4aR	ACTTCTGCAGCTGCATCTGC	
KEAP1-Ex-4bF	CATCAACTGGGTCAAGTACG	56
KEAP1-Ex-4bR	GGTTGTAAGCCTCCAGGTAG	
KEAP1-Ex-4cF	AGGTGGGCCCGCCTGATCTAC	56
KEAP1-Ex-4cR	GCGACCACTGATTGGTCATG	
KEAP1-Ex-4dF	AACTCGCCCGACGGCAACAC	54
KEAP1-Ex-4dR	GACTTGCCAGGAGCAGGACC	
KEAP1-Ex-5F	GTCAGCTATAATGGCCATTG	60
KEAP1-Ex-5R	TGTTCTGGGTGCTCCCTC	
KEAP1-Ex-6F	TCCCAAAGCCAGACCCCGAG	60
KEAP1-Ex-6R	AGATGGGCTAGTCAGGACTC	
KEAP1-Ex-7aF	TCTTGATGTGGTGTGACAG	56
KEAP1-Ex-7aR	TGATACTCCCATTTGGACTG	
NFE2L2- Ex2-F	CCACCATCAACAGTGGCATA	64
NFE2L2-Ex2-R	CCTGCCATAACTTTCCCAAG	

Table S4. Primers sets used for fluorescence-based loss of heterozygosity (LOH) analysis.

Primer name	Primer sequence (5' → 3')	Annealing Temperature (°C)
D19S865_for	GCTATTTGGGGTCTCTATCAATG	60
D19S865_rev	GAAATCGCACAGTATTTGTCTCAC	
DM1_for	TGAAGCTGAGGCACAGG	60
DM1_rev	ATGATGGACACTACACCTTCA	
D19S906_for	AGATCGCACCACTGTACTCC	60
D19S906_rev	TTCCCGCCTAGTAACGGAC	
D19S840_for	ATAGGCCAAGACTGTCTAAAACAA	60
D19S840_rev	GCCCTAACTGCTGTAAGAGAACT	

Table S5. Antibodies used for western blot and immunohistochemical profiling of lung cancer cohort.

Antibody	Clone	Manufacturer	Source
KEAP1	Ag0779	Proteintech	Rabbit
NRF2	Ag9489	Proteintech	Rabbit
NQO1	Ag2009	Proteintech	Rabbit
TXNRD1	Ag1618	Proteintech	Rabbit

Supplemental Figure S1

