

Supplementary Tables S4-9 for

PER2 interaction with HSP70 promotes cuproptosis in oral squamous carcinoma cells by decreasing AKT stability

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Table S4. sh-*PER2* sequences

ID	Accession	Target Seq
sh-PER2 #1	NM_022817	gcCAGAGTCCAGATACCTTTA
sh-PER2 #2	NM_022817	ccACGAGAATGAAATCCGCTA
sh-PER2 #3	NM_022817	ccAAATTGTTTGTTCAGGAT

Table S5. Sequences of primers corresponding to each structural domain of overexpressed *PER2* and deletion mutant *PER2* containing Flag tags

ID	Forward sequence(5'to 3')	Reverse sequence(5' to 3')
Flag-PER2	AGGTCGACTCTAGAGGATCCCGCCACC ATGAATGGATACGCGGAATTTCCGCCC	ACCGTAAGTTATGTGCTAGCTTACGT CTGCTCTTCGATCCTGTGATTC
Flag-Mut- PER2 ^{ΔPAS1}	GTTAAGCTTGGTACCGAGCTCGGA TCCgccaccATGAATGGATACGCG	CGCCACTGTGCTGGATATCTGCAGAA TTCCGTCTGCTCTTCGATCCTGT
Flag-Mut- PER2 ^{ΔPAS2}	GTTAAGCTTGGTACCGAGCTCGGA TCCgccaccATGAATGGATACGCG	CGCCACTGTGCTGGATATCTGCAGAA TTCCGTCTGCTCTTCGATCCTGT
Flag-Mut- PER2 ^{ΔCT}	GTTAAGCTTGGTACCGAGCTCGGATCC gccaccATGAATGGATACGCG	GCCACTGTGCTGGATATCTGCAGAAT TCGGAGGTCTGGCTCATAAGGT

Table S6. primer sequences for *PER2* promoter reporter gene plasmid, ATF3 plasmid, and *PER2* promoter truncation

ID	Forward sequence(5'to 3')	Reverse sequence(5' to 3')
pGL3-PER2	GAGATTGGTAAGAACAGCCCC	TGGAGCTCCCAAAGTTCGAC
OE-ATF3	GGCTCAGAATGGGAGGA	GCTTCAGGGTTTTGGGTAT
Domain#1	AGATGTCGAACTTTGGGAGC	GGCCAACCTAAGCGATTCCT
Domain#2	AACACAGAAAGGCCAGTCCC	GGAAGCCAGCCGCAAAAATG
Domain#3	CCAGGCCCTCACTCAGCA	TGGCACAGGGGCAGTCAT

Table S7. Primer sequences for *PER2* promoter point mutants

ID	Forward sequence(5'to 3')	Reverse sequence(5' to 3')
Mut	AACACAGAAAGGCCAGTCCC	GGAAGCCAGCCGCAAAAATG

Table S8. Primer sequences for RT-qPCR

Gene	Forward primer sequence (5'to 3')	Reverse primer sequence (5' to 3')
PER2	TATGGTGACTTCCCTTTGC	ATGTGATGTGGGCTTGG
FDX1	TCATTACATGGTGGAAGGG	AATGCCGTTATCTCAGGTG
LIAS	TGGGTTTAGGCGAGAATG	GCCTTGTTGGCTGCATA
LIPT1	CGGAGAAGAAGTGGAGGAG	GGGTTGGACAGCATTGAG
DLAT	ACCACTTTCCACCCCTTT	CACGCACGCTCTTTCTC
DLD	TGCCAACTTCCCTCTACTTT	ATATCAGACCAACCCTCCTG
PDHA1	TCAACCCACAGACCATC	CCCTTTAGCACAAACCTCCT
PDHB	GCACCTGGATTTGTACTGC	GGGAGGAGAGTGGAGAG
MTF1	CTTTCTCTGCCCTTTTCC	CCACCCTCCCCAAATAG
GLS	CTGTCCAGCTCTCCTTCG	CTCTTTGCCCTCGCTGT
CDKN2A	GACACGCTGGTGGTGCT	GCAATGGTTACTGCCTCTGG
SLC31A1	TGAGCCTACTGGATTGAGG	CCTTTGTGTTGGACTTCGT
ATP7A	GATCCAAGTATGGGTGTGAAT	AATCTGCTGCTCAATGGTC
ATP7B	TATGTCAGCCAGGTGTCG	GCCATTCAGGAGCAGAGA
β -actin	TCTCCCAAGTCCACACAGG	GGCACGAAGGCTCATCA

Table S9. Antibodies for Western Blotting

Antibody	Catalog NO.	Brand	Country	Dilution ratio			
				IHC	WB	FC	Co-IP
PER2	NB100-125SS	Novus	America	1:200	1:1000		1:100
DLAT	T58125	Abmart	China	1:200	1:1000	1:50	
PDHB	14744-1-AP	Proteintech	America	1:500	1:3000		
SLC31A1	T510261	Abmart	China	1:500	1:1000		
HSP70	M20033	Abmart	America		1:3000		1:100
SDHB	10620-1-AP	Proteintech	America		1:10000		
DPYD	27662-1-AP	Proteintech	America		1:5000		
AKT	4691	CST	America		1:2000		1:100
p-AKT (473)	4060	CST	America		1:2000		1:100
Flag	20543-1-AP	Proteintech	America		1:50000		1:100
Ubiquitin (P4D1)	3936	CST	America		1:1000		
ATF3	ab207434	Abcam	America	1:100	1:1000		1:50
β-actin	66009-1-Ig	Proteintech	America		1:30000		
Ki67	27309-1-AP	Proteintech	America	1:5000			
IgG	30000-0-AP	Proteintech	America				1:100
Anti-Rabbit							
IgG Alexa Fluor 488	4412S	CST	America			1:1000	