

# Loss of COX5B inhibits proliferation and promotes senescence via mitochondrial dysfunction in breast cancer

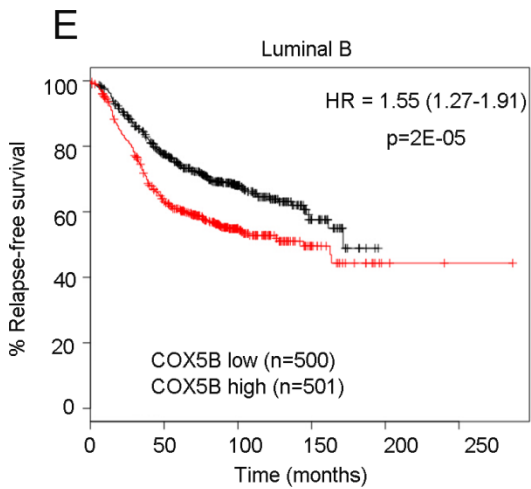
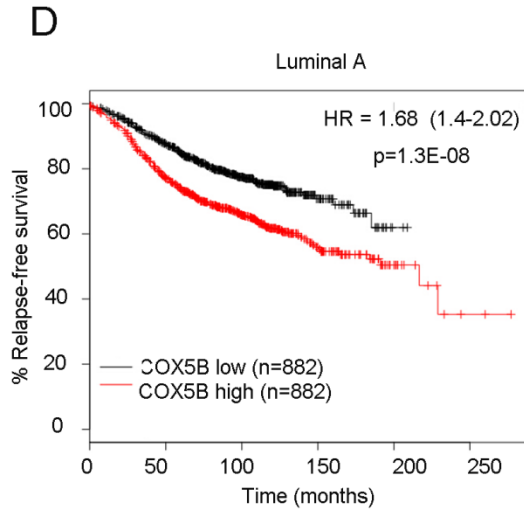
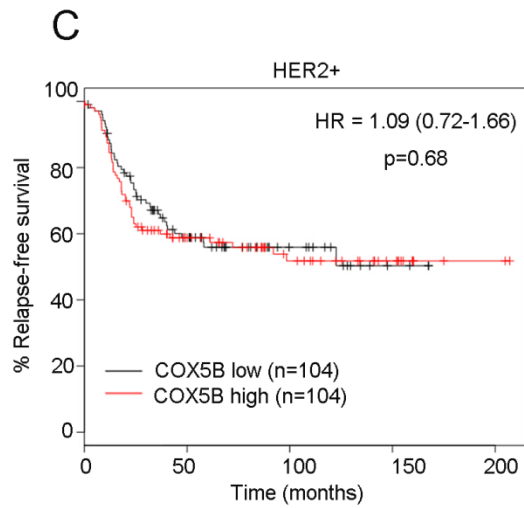
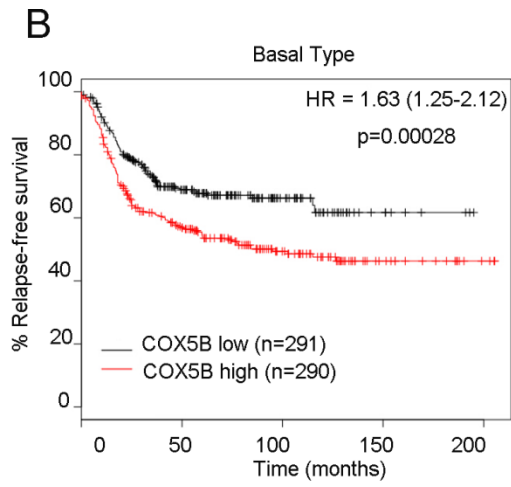
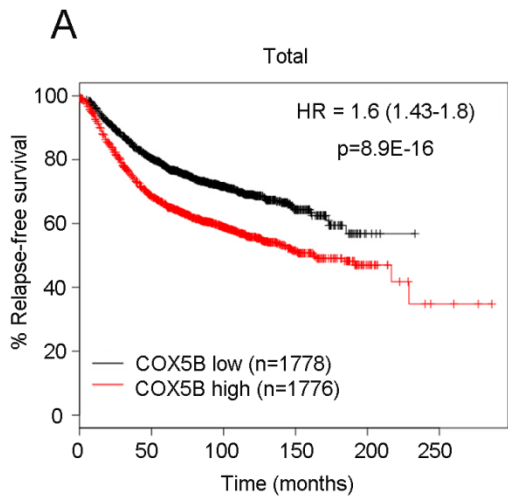
## Supplementary Material

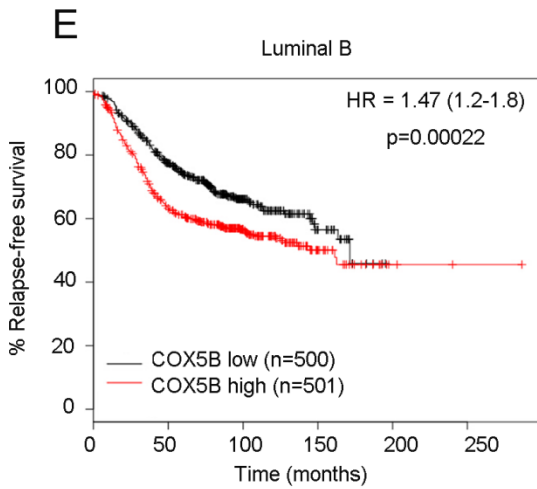
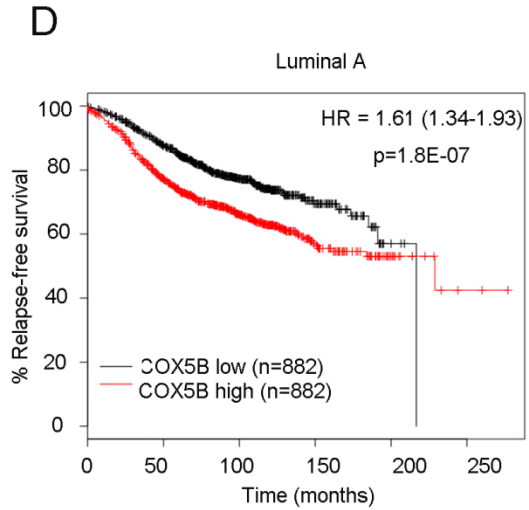
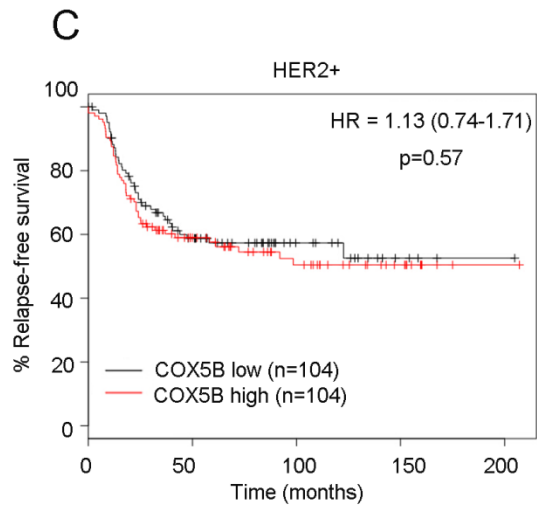
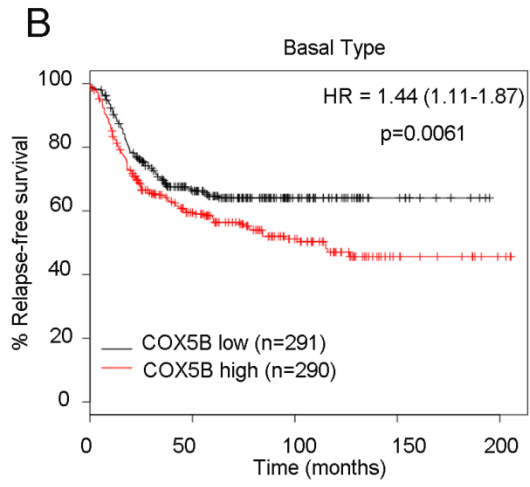
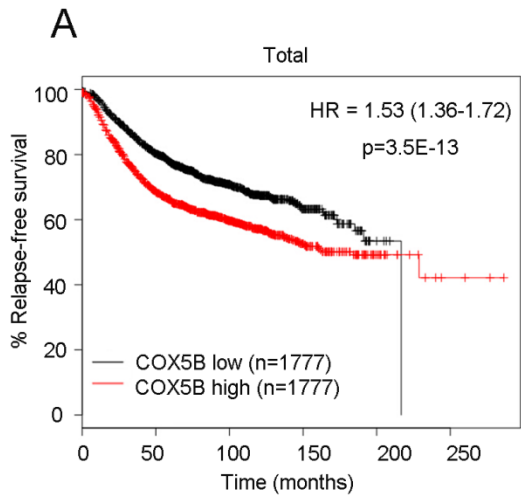
COX5B\_HUMAN (100%) 13,695.7 Da

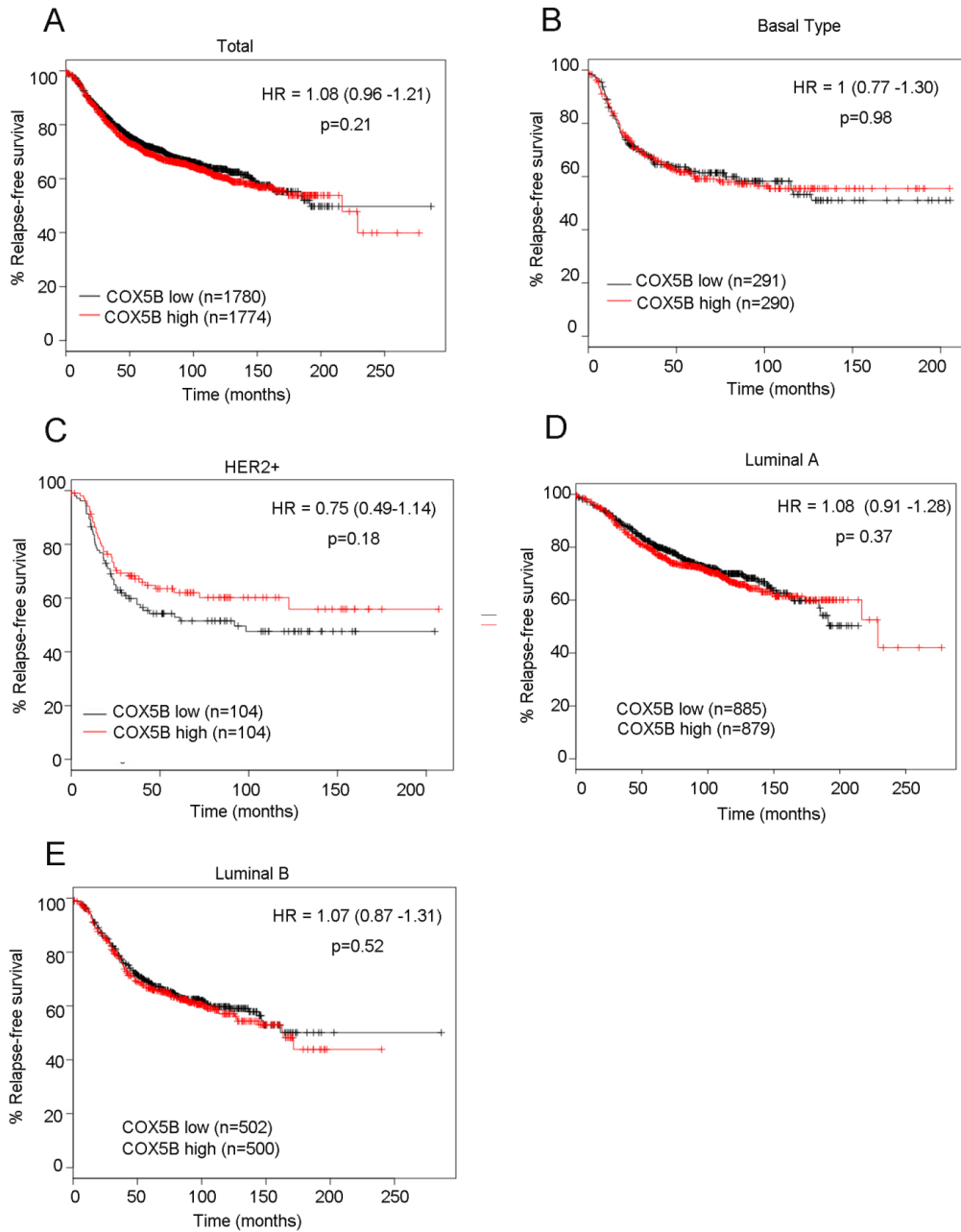
Cytochrome c oxidase subunit 5B, mitochondrial OS=Homo sapiens GN=COX5B PE=1 SV=2

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IMLAAKKGLD PYNVLAPKGA SGTREDPNLV PSISNKRIVG CICEEDNTSV  
VFWLHKGEA QRCPRCGAHY KLVPQQLAH
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Figure S1: The peptide sequences of COX5B

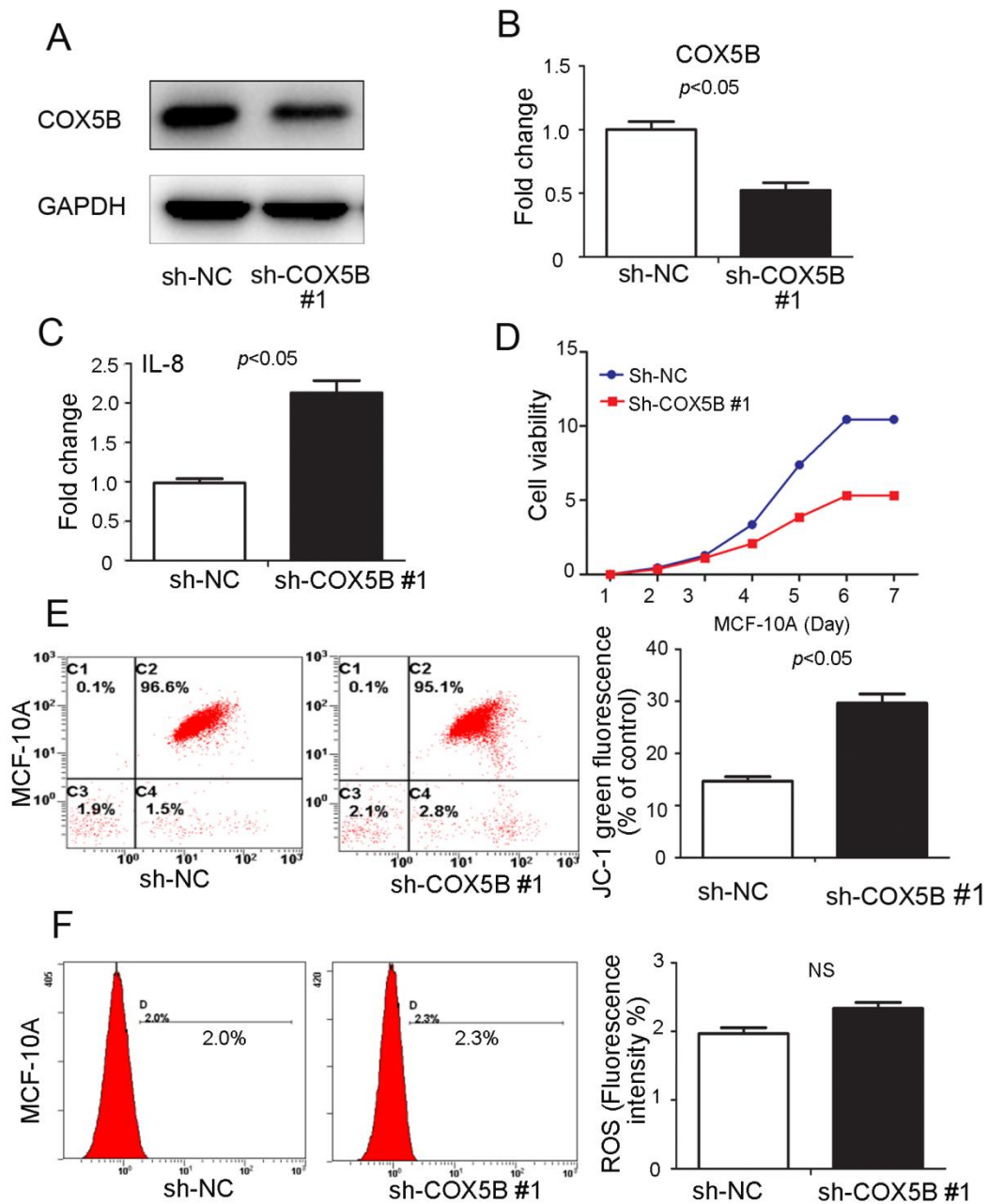






**Supplementary Figure S2-4**

The survival analysis of COX5B expression in patients with indicated subtype with other probes of COX5B (211025\_x\_at, 213735\_s\_at, 213736\_at) using the online Kaplan-Meier plotting tool (Total; Basal Type; Her2+; Lumina A; Lumina B)



### Supplementary Figure S5 Down-regulation of COX5B in MCF10A

(A B) The protein and mRNA expression of COX5B in MCF10A (sh-NC and sh-COX5B #1). (C) IL-8 expression analyzed by Real-time PCR. (D) The proliferation of MCF10A by CCK8. (E) The depolarization of MMP of MCF10A. (F) FACS analysis of mitochondrial ROS.

Supplementary Table 1: Primer sequences

Gene name	primer	sequence
COX5B	Foward	5'-GTTTTGGCTGCACAAAGGGC-3'
	Reverse	5'-CTGGGGCACCAGCTTGTAAT-3'
CXCL1	Foward	5'-TCGAAAAGATGCTGAACAGTGAC-3'
	Reverse	5'-CCAGATTGAACTAACTTGGGGTTG-3'
CXCL16	Foward	5'-ATGCTTACTCGGGGATTGTG-3'
	Reverse	5'-GTGGTTTCATTGGGACGAGT-3'
CXCL18	Foward	5'-AGTGGCTCACGCCTGTAATC-3'
	Reverse	5'-TCTACCTCCGGAGTGCAAGT-3'
IL-8	Foward	5'-AGGGTTGCCAGATGCAATAC-3'
	Reverse	5'-CCTTGGCCTCAATTTTGCTA-3'
IL-10	Foward	5'-CCACGTGTTGAGATCATTGCT-3'
	Reverse	5'-TGCATCGATTTTGCTCCCCT-3'
CSF2	Foward	5'-GCGTCTCCTGAACCTGAGTAG-3'
	Reverse	5'-TCGGCTCCTGGAGGTCAAAC-3'
CES1	Foward	5'-AAGCAGGAGTTTGGCTGGTT-3'
	Reverse	5'-GCTCCAGCATCTCTGTGGTT-3'
ATP6V0	Foward	5'-TGGCACTGAATTGAGCAAAG-3'
	Reverse	5'-TCACGCTCGTAAAACACGTC-3'
EPHB6	Foward	5'-CAGCCTAGAAGACCTGCCTG-3'
	Reverse	5'-CCATCGGAGGGTTGGGTTTG-3'
JAG1	Foward	5'-TGTGAAATTGCTGAGCACGC-3'
	Reverse	5'-ACACAAGGTTTGGCCTCACA-3'
CALB2	Foward	5'-ATGGCAAATTGGGCCTCTCA-3'
	Reverse	5'-GCCGCTTCTATCCTTGTCGT-3'
GPR110	Foward	5'-CTGGAAAGGGATTCCAGTGA-3'
	Reverse	5'-GGTCCATTGACCTGAGCATT-3'
GAPDH	Foward	5'-GGTGGTCTCCTCTGACTTCAACA-3'
	Reverse	5'-GTTGCTGTAGCCAAATTCGTTGT-3'