

Supplementary Tables for: "Role of inflammatory-related gene expression in clear cell renal cell carcinoma development and clinical outcomes"

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Supplementary Table 1. Association of inflammation-related genes with recurrence in the discovery population using expression microarrays

Gene	Expression	Recurrence			P-value
		No. n(%)	Yes. n(%)	HR* (95%CI)	
<i>BLNK</i>	Low	33(64.71)	4(19.05)	1(reference)	0.0015
	High	18(35.29)	17(80.95)	19.05(3.10-117.19)	
<i>IL8</i>	Low	38(74.51)	8(38.10)	1(reference)	0.0019
	High	13(25.49)	13(61.90)	7.42(2.09-26.37)	
<i>CXCL1</i>	Low	35(68.63)	5(23.81)	1(reference)	0.0023
	High	16(31.37)	16(76.19)	7.08(2.01-24.92)	
<i>C1R</i>	Low	29(56.86)	7(33.33)	1(reference)	0.0030
	High	22(43.14)	14(66.67)	8.87(2.10-37.46)	
<i>MMP9</i>	Low	39(76.47)	12(57.14)	1(reference)	0.0035
	High	12(23.53)	9(42.86)	8.19(2.00-33.59)	
<i>GADD45G</i>	Low	42(82.35)	13(61.90)	1(reference)	0.0037
	High	9(17.65)	8(38.10)	8.95(2.04-39.27)	
<i>SOD2</i>	Low	29(56.86)	6(28.57)	1(reference)	0.0046
	High	22(43.14)	15(71.43)	9.40(1.99-44.28)	
<i>MUC1</i>	Low	31(60.78)	5(23.81)	1(reference)	0.0070
	High	20(39.22)	16(76.19)	35.30(4.49-277.28)	
<i>APP</i>	Low	14(27.45)	10(47.62)	1(reference)	0.0075
	High	37(72.55)	11(52.38)	0.19(0.058-0.64)	
<i>ADORA3</i>	Low	17(33.33)	5(23.81)	1(reference)	0.011
	High	34(66.67)	16(76.19)	16.35(1.92-139.42)	
<i>NR2F1</i>	Low	21(41.18)	15(71.43)	1(reference)	0.017
	High	30(58.82)	6(28.57)	0.22(0.064-0.77)	
<i>CARD9</i>	Low	29(56.86)	8(38.10)	1(reference)	0.019
	High	22(43.14)	13(61.90)	6.16(1.35-28.00)	
<i>BMP4</i>	Low	31(60.78)	18(85.71)	1(reference)	0.023
	High	20(39.22)	3(14.29)	0.16(0.033-0.77)	
<i>KLK1</i>	Low	14(27.45)	6(28.57)	1(reference)	0.025
	High	37(72.55)	15(71.43)	4.95(1.22-20.10)	
<i>IL10RA</i>	Low	29(56.86)	8(38.10)	1(reference)	0.026
	High	22(43.14)	13(61.90)	5.27(1.22-22.74)	
<i>MEF2C</i>	Low	7(13.73)	10(47.62)	1(reference)	0.033
	High	44(86.27)	11(52.38)	0.31(0.11-0.91)	
<i>PDE2A</i>	Low	15(29.41)	16(76.19)	1(reference)	0.034
	High	36(70.59)	5(23.81)	0.26(0.077-0.91)	
<i>ANGPTL4</i>	Low	39(76.47)	15(71.43)	1(reference)	0.046
	High	12(23.53)	6(28.57)	0.21(0.046-0.97)	

Abbreviations: HR, Hazard ratio; CI, Confidence interval

*, adjusted for age at diagnosis, gender, BMI, family history of cancer, race, hypertension, smoking status, and stage

High and Low expression cut-off was determined using spline modeling

Highlighted genes were also significantly associated with survival.

Supplementary Table 2. Results for recurrence and overall survival in the validation population using qRT-PCR

Gene	Expression	Recurrence			P-value
		No. n(%)	Yes. n(%)	HR* (95%CI)	
<i>BLNK</i>	Low	90(53.57)	25(40.98)	1(reference)	0.73
	High	78(46.43)	36(59.02)	1.12(0.59-2.11)	
<i>IL8</i>	Low	130(76.47)	31(50.82)	1(reference)	0.72
	High	40(23.53)	30(49.18)	1.12(0.61-2.06)	
<i>CXCL1</i>	Low	95(56.21)	24(39.34)	1(reference)	0.46
	High	74(43.79)	37(60.66)	1.26(0.68-2.36)	
<i>C1R</i>	Low	93(54.71)	25(40.98)	1(reference)	0.46
	High	77(45.29)	36(59.02)	1.25(0.69-2.28)	
<i>MMP9</i>	Low	91(54.17)	26(42.62)	1(reference)	0.98
	High	77(45.83)	35(57.38)	1.01(0.55-1.83)	
<i>GADD45G</i>	Low	127(75.60)	43(70.49)	1(reference)	0.034
	High	41(24.40)	18(29.51)	2.09(1.06-4.14)	
<i>SOD2</i>	Low	85(50.00)	32(52.46)	1(reference)	0.49
	High	85(50.00)	29(47.54)	1.24(0.67-2.30)	

<i>MUC1</i>	Low	88(51.76)	27(44.26)	1(reference)	0.94
	High	82(48.24)	34(55.74)	0.98(0.54-1.77)	
<i>APP</i>	Low	58(34.12)	19(31.15)	1(reference)	0.41
	High	112(65.88)	42(68.85)	1.31(0.69-2.50)	
<i>ADORA3</i>	Low	59(35.54)	18(30.00)	1(reference)	0.43
	High	107(64.46)	42(70.00)	0.76(0.38-1.50)	
<i>NR2F1</i>	Low	81(47.93)	33(54.10)	1(reference)	0.74
	High	88(52.07)	28(45.90)	1.11(0.60-2.06)	
<i>CARD9</i>	Low	92(56.10)	23(37.70)	1(reference)	0.76
	High	72(43.90)	38(62.30)	1.10(0.59-2.05)	
<i>BMP4</i>	Low	78(44.15)	40(65.57)	1(reference)	0.42
	High	91(55.85)	21(34.43)	0.76(0.40-1.47)	
<i>KLK1</i>	Low	57(51.82)	15(45.45)	1(reference)	0.87
	High	53(48.18)	18(54.55)	0.93(0.40-2.15)	
<i>IL10RA</i>	Low	86(50.59)	31(50.82)	1(reference)	0.35
	High	84(49.41)	30(49.18)	1.34(0.73-2.44)	

Gene	Expression	Death			P-value
		No. n(%)	Yes. n(%)	HR* (95%CI)	
<i>ADORA3</i>	Low	152(77.95)	37(64.91)	1(reference)	0.71
	High	43(22.05)	20(35.09)	1.16(0.54-2.51)	
<i>CARD9</i>	Low	139(71.65)	29(50.88)	1(reference)	0.010
	High	55(28.35)	28(49.12)	2.52(1.24-5.12)	
<i>CRADD</i>	Low	100(50.25)	28(49.12)	1(reference)	0.39
	High	99(49.75)	29(50.88)	1.34(0.69-2.59)	
<i>NCF2</i>	Low	104(52.00)	25(43.86)	1(reference)	0.023
	High	96(48.00)	32(56.14)	2.26(1.12-4.58)	
<i>SOCS1</i>	Low	108(54.00)	21(36.84)	1(reference)	0.20
	High	92(46.00)	36(63.16)	1.48(0.81-2.70)	
<i>EBI3</i>	Low	103(52.55)	24(42.11)	1(reference)	0.80
	High	93(47.45)	33(57.89)	0.92(0.49-1.73)	
<i>CITTA</i>	Low	122(61.00)	33(57.89)	1(reference)	0.037
	High	78(39.00)	24(42.11)	2.11(1.05-4.27)	

Abbreviations: HR, Hazard ratio; CI, Confidence interval

*, adjusted for age at diagnosis, gender, BMI, family history of cancer, race, hypertension, smoking status, and stage

High and Low expression cut-off was determined using spline modeling.