**Supplementary tables**

**Table S1.** AJCC/UICC-TNM and clinical staging for colon cancer patients.

| AJCC stage | TNM stage | | | TNM criteria |
|---|---|---|---|---|
| | T | N | M | |
| 0 | *in situ* | 0 | 0 | Tumor confined to mucosa |
| I | 1 | 0 | 0 | Tumor invades into submucosa |
| I | 2 | 0 | 0 | Tumor invades into muscularis propria |
| IIA | 3 | 0 | 0 | Tumor invades into subserosa |
| IIB | 4 | 0 | 0 | Tumor invades into adjacent organs |
| IIIA | 1-2 | 1 | 0 | Tumor metastases to 1-3 nodes |
| IIIB | 3-4 | 1 | 0 | Tumor metastases to 1-3 nodes |
| IIIC | 1-4 | 2 | 0 | Tumor metastases to 4 or more nodes |
| IV | 1-4 | 0-2 | 1 | Metastases to distant sites |

**Table S2.** The association of TMEM211 expression with clinicopathologic outcomes in colon cancer patients from TCGA database.

| Variable | No. (%) | Mean±SD | Median | *p value*[*] |
|---|---|---|---|---|
| Sex | | | | |
| Female | 122 (45.0) | 3.75 ± 2.03 | 3.9116 | 0.405 |
| Male | 149 (55.0) | 3.96 ± 2.06 | 4.2920 | |
| Age, yrs | | | | |
| ≦70 | 161 (59.4) | 3.90 ± 2.08 | 4.0863 | 0.744 |
| ＞70 | 110 (40.6) | 3.82 ± 2.01 | 4.0342 | |
| AJCC pathological stage | | | | |
| I + II | 152 (56.1) | 3.98 ± 2.01 | 4.1238 | 0.294 |
| III + IV | 119 (43.9) | 3.72 ± 2.10 | 3.9192 | |
| T classification | | | | |
| T1 + T2 | 47 (17.3) | 3.83 ± 2.09 | 4.0863 | 0.886 |
| T3 + T4 | 224 (82.7) | 3.87 ± 2.05 | 4.0632 | |
| N classification | | | | |
| N0 | 157 (57.9) | 3.95 ± 2.00 | 4.1196 | 0.429 |
| N1 +N2 | 114 (42.1) | 3.75 ± 2.11 | 3.9236 | |

Abbreviations: AJCC, American Joint Committee on Cancer

[*]p values were estimated by student's t-test.

**Table S3.** The association of TMEM211 expression with overall survival colon cancer patients from TCGA database.

| Variable | ROC | No. (%) | CHR (95% CI) | *p value*[*] | AHR (95% CI) | *p value*[†] |
|---|---|---|---|---|---|---|
| Sex | | | | | | |
| Female | Low | 98 (80.3) | 1 | | 1 | |
| | High | 24 (19.7) | 0.99 (0.37−2.67) | 0.990 | 1.04 (0.39−2.78) | 0.944[a] |
| Male | Low | 115 (77.2) | | | 1 | |
| | High | 34 (22.8) | 1.73 (0.90−3.34) | 0.101 | 2.21 (1.12−4.40) | 0.023[a] |
| Age, yrs | | | | | | |
| ≦ 70 | Low | 125 (77.6) | 1 | | 1 | |
| | High | 36 (22.4) | 1.28 (0.56−2.94) | 0.562 | 1.85 (0.79−4.31) | 0.154[a] |
| ＞70 | Low | 88 (80.0) | 1 | | 1 | |
| | High | 22 (20.0) | 1.64 (0.80−3.36) | 0.177 | 1.78 (0.86−3.66) | 0.119[a] |
| AJCC pathological stage | | | | | | |
| I, II | Low | 118 (77.6) | 1 | | | |
| | High | 34 (22.4) | 1.29 (0.55−3.02) | 0.563 | ND | ND |
| III, IV | Low | 95 (79.8) | 1 | | | |
| | High | 24 (20.2) | 1.81(0.90−3.65) | 0.096 | ND | ND |
| T classification | | | | | | |
| T1, T2 | Low | 36 (76.6) | 1 | | 1 | |
| | High | 11 (23.4) | 7.49 (0.75−74.86) | 0.086 | 5.99 (0.57−63.22) | 0.137[b] |
| T3, T4 | Low | 177 (79.0) | 1 | | 1 | |
| | High | 47 (21.0) | 1.29 (0.73−2.29) | 0.381 | 1.43 (0.80−2.56) | 0.222[b] |
| N classification | | | | | | |
| N0 | Low | 123 (78.3) | 1 | | 1 | |
| | High | 34 (21.7) | 1.21 (0.53−2.80) | 0.653 | 1.21 (0.52−2.78) | 0.659[c] |
| N1, N2 | Low | 90 (78.9) | 1 | | 1 | |
| | High | 24 (21.1) | 1.83 (0.90−3.71) | 0.094 | 1.81 (0.89−3.69) | 0.104[c] |

Abbreviations: ROC, operator characteristic curve for low and high expression; CHR, crude hazard ratio; CI, confidence interval; AHR, adjusted hazard ratio.

[*]p values were estimated by Cox's regression.

[†]p values were estimated by multivariate Cox's regression.

[a]Adjusted for AJCC pathological stage (stage III + IV vs stage I + II).

[b]Adjusted for N classification (N1, N2 vs N0).

[c]Adjusted for T classification (T3, T4 vs T1 + T2).

ND: Non-determined.

**Table S4.** The association of TMEM211 expression with progression-free interval survival in colon cancer patients from TCGA database.

| Variable | ROC | No. (%) | CHR (95% CI) | *p value*[*] | AHR (95% CI) | *p value*[†] |
|---|---|---|---|---|---|---|
| Sex | | | | | | |
| Female | Low | 43 (35.2) | 1 | | 1 | |
| | High | 79 (64.8) | 1.85 (0.75−4.52) | 0.180 | 1.88 (0.77−4.61) | 0.167[a] |
| Male | Low | 46 (30.9) | 1 | | 1 | |
| | High | 103 (69.1) | 1.72 (0.88−3.37) | 0.116 | 2.00 (1.01−3.96) | 0.048[a] |
| Age, yrs | | | | | | |
| ≦ 70 | Low | 52 (32.3) | 1 | | 1 | |
| | High | 109 (67.7) | 1.13 (0.60−2.12) | 0.698 | 1.26 (0.67−2.37) | 0.478[a] |
| ＞70 | Low | 37 (33.6) | 1 | | 1 | |
| | High | 73 (66.4) | 4.53 (1.38−14.86) | 0.013 | 4.98 (1.51−16.47) | 0.008[a] |
| AJCC pathological stage | | | | | | |
| I, II | Low | 47 (30.9) | 1 | | | |
| | High | 105 (69.1) | 2.60 (0.90−7.44) | 0.077 | ND | ND |
| III, IV | Low | 42 (35.3) | 1 | | | |
| | High | 77 (64.7) | 1.58 (0.83−3.00) | 0.162 | ND | ND |
| T classification | | | | | | |
| T1, T2 | Low | 17 (36.2) | 1 | | 1 | |
| | High | 30 (63.8) | 39.37 (0.016−94736.14) | 0.355 | 305856.10 (0.00−4.258E + 293) | 0.970[b] |
| T3, T4 | Low | 72 (32.1) | 1 | | 1 | |
| | High | 152 (67.9) | 1.54 (0.89−2.64) | 0.121 | 1.65 (0.96−2.85) | 0.071[b] |
| N classification | | | | | | |
| N0 | Low | 49 (31,2) | 1 | | 1 | |
| | High | 108 (68.8) | 2.32 (0.89−6.02) | 0.084 | 2.21 (0.85−5.73) | 0.105[c] |
| N1, N2 | Low | 40 (35.1) | 1 | | 1 | |
| | High | 74 (64.9) | 1.57 (0.81−3.06) | 0.183 | 1.57 (0.81−3.06) | 0.185[c] |

Abbreviations: ROC, operator characteristic curve for low and high expression; CHR, crude hazard ratio; CI, confidence interval; AHR, adjusted hazard ratio.

[*]p values were estimated by Cox's regression.

[†]p values were estimated by multivariate Cox's regression.

[a]Adjusted for AJCC pathological stage (stage III + IV vs stage I + II).

[b]Adjusted for N classification (N1, N2 vs N0).

[c]Adjusted for T classification (T3, T4 vs T1 + T2).

ND: Non-determined.

**Table S5.** The association of TMEM211 expression with disease-free interval survival in colon cancer patients from TCGA database.

| Variable | ROC | No. (%) | CHR (95% CI) | *p value*[*] | AHR (95% CI) | *p value*[†] |
|---|---|---|---|---|---|---|
| Sex | | | | | | |
| Female | Low | 11 (27.5) | 1 | | 1 | |
| | High | 29 (72.5) | 1.80 (0.20−16.17) | 0.601 | 1.95 (0.21−18.06) | 0.559[a] |
| Male | Low | 16 (29.1) | 1 | | 1 | |
| | High | 39 (70.9) | 35.580 (0.09−14764.69) | 0.246 | 293605.72 (0.00−3.632E+240) | 0.964[a] |
| Age, yrs | | | | | | |
| ≦ 70 | Low | 19 (30.2) | 1 | | 1 | |
| | High | 44 (69.8) | 3.58 (0.44−29.24) | 0.233 | 3.69 (0.45−30.20) | 0.224[a] |
| ＞70 | Low | 8 (25.0) | 1 | | 1 | |
| | High | 24 (75.0) | 33.820 (0.02−66199.71) | 0.363 | 289457.37 (0.00−1.817E+295) | 0.971[a] |
| AJCC pathological stage | | | | | | |
| I, II | Low | 18 (26.5) | 1 | | | |
| | High | 50 (73.5) | 34.52 (0.08−15191.10) | 0.254 | ND | ND |
| III, IV | Low | 9 (33.3) | 1 | | | |
| | High | 18 (66.7) | 2.68 (0.30−24.26) | 0.381 | ND | ND |
| T classification | | | | | | |
| T1, T2 | Low | 7 (28.0) | 1 | | 1 | |
| | High | 18 (72.0) | 35.83 (0.00−11423601.49) | 0.5 80 | 35.83 (0.00−11423601.49) | 0.580[b] |
| T3, T4 | Low | 20 (28.6) | 1 | | 1 | |
| | High | 50 (71.4) | 5.46 (0.70−42.54) | 0.105 | 5.55 (0.71−43.28) | 0.102[b] |
| N classification | | | | | | |
| N0 | Low | 18 (26.9) | 1 | | 1 | |
| | High | 49 (73.1) | 34.95 (0.06−21421.73) | 0.278 | 287034.83 (0.00−4.833e+255) | 0.966[c] |
| N1, N2 | Low | 9 (32.1) | 1 | | 1 | |
| | High | 19 (67.9) | 3.19 (0.37−27.57) | 0.293 | 3.19 (0.37−27.57) | 0.293[c] |

Abbreviations: ROC, operator characteristic curve for low and high expression; CHR, crude hazard ratio; CI, confidence interval; AHR, adjusted hazard ratio.

[*]p values were estimated by univariate Cox's regression.

[†]p values were estimated by multivariate Cox's regression.

[a]Adjusted for AJCC pathological stage (stage III + IV vs stage I + II).

[b]Adjusted for N classification (N1, N2 vs N0).

[c]Adjusted for T classification (T3, T4 vs T1 + T2).

ND: Non-determined.

**Table S6.** The association of TMEM211/MMP2 or MMP9 co-expression with disease-specific survival in colon cancer patients from TCGA database.

| Variable | ROC | No. (%) | CHR (95% CI) | *p value*[*] | AHR (95% CI) | *p value*[†] |
|---|---|---|---|---|---|---|
| TMEM211 | Low | 139 (54.3) | 1.00 | | 1.00 | |
| | High | 117 (45.7) | 1.81 (0.91−3.59) | 0.090 | 2.30 (1.15−4.60) | 0.019[a] |
| MMP2 | Low | 92 (35.9) | 1.00 | | 1.00 | |
| | High | 164 (64.1) | 2.13 (0.96−4.71) | 0.062 | 1.93 (0.87−4.28) | 0.105[a] |
| TMEM211 (L), MMP2 (L) | | 47 (18.4) | 1.00 | | 1.00 | |
| TMEM211 (H), MMP2 (L) | | 45 (17.6) | 0.91 (0.38−2.20) | 0.832 | 3.23 (0.65−16.03) | 0.151[b] |
| TMEM211 (L), MMP2 (H) | | 92 (35.9) | 1.00 (0.49−2.02) | 0.995 | 3.48 (0.78−15.58) | 0.102[b] |
| TMEM211 (H), MMP2(H) | | 72 (28.1) | 2.10 (1.06−4.18) | 0.034 | 5.76 (1.31−25.42) | 0.021[b] |
| MMP9 | Low | 154 (35.5) | 1.00 | | 1.00 | |
| | High | 102 (64.5) | 1.48 (0.76−2.92) | 0.251 | 1.32 (0.67−2.61) | 0.416[a] |
| TMEM211 (L), MMP9 (L) | | 78 (30.5) | 1.00 | | 1.00 | |
| TMEM211 (H), MMP9 (L) | | 76 (29.7) | 1.41 (0.71−2.83) | 0.326 | 2.75 (0.98−7.74) | 0.055[b] |
| TMEM211 (L), MMP9 (H) | | 61 (23.8) | 1.16 (0.54−2.48) | 0.708 | 2.44 (0.82−7.31) | 0.110[b] |
| TMEM211 (H), MMP9(H) | | 41 (16.0) | 1.63 (0.71−3.76) | 0.251 | 3.30 (1.04−10.45) | 0.042[b] |

Abbreviations: ROC, operator characteristic curve for low and high expression; CHR, crude hazard ratio; CI, confidence interval; AHR, adjusted hazard ratio.

[*]p values were estimated by univariate Cox's regression.

†p values were estimated by multivariate Cox's regression.

[a]p values were adjusted for cell differentiation (moderate + poor vs. well) and AJCC pathological stage (stage III + IV vs stage I + II) by multivariate Cox's regression.

[b]p values were adjusted for group comparison by multivariate Cox's regression.