Figure S1.

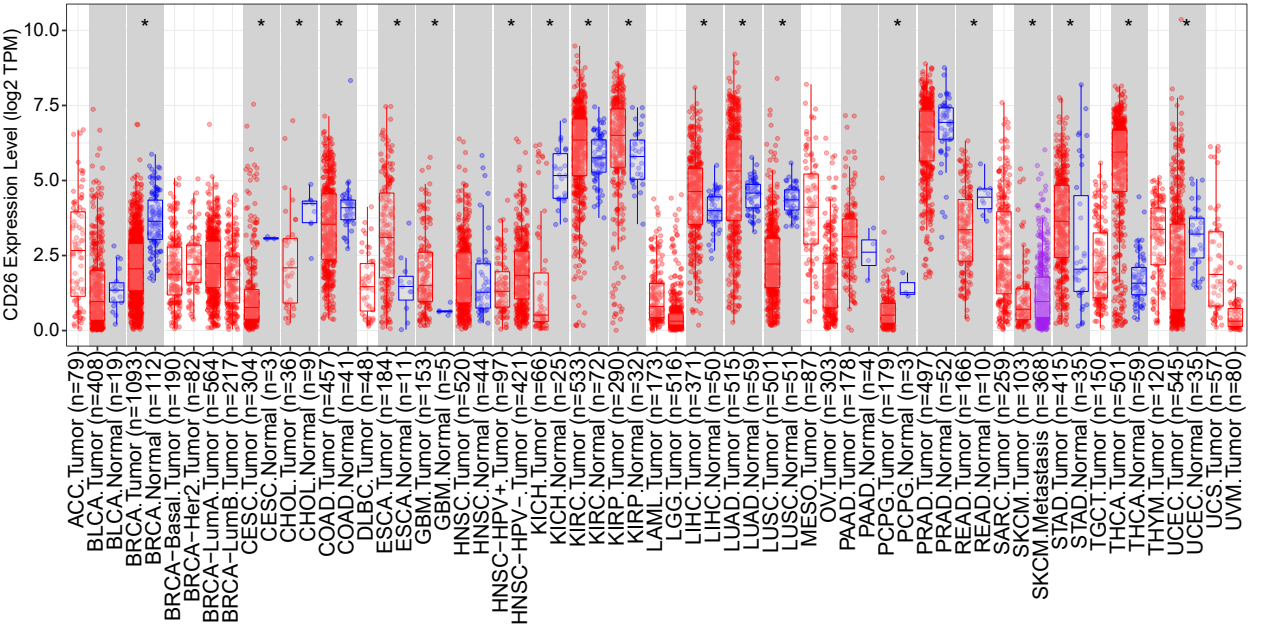

CD26 Expression Level (log2 TPM)
10.0
7.5
5.0
2.5
0.0
ACC.Tumor (n=79)
BLCA.Tumor (n=408)
BLCA.Normal (n=19)
BRCA.Tumor (n=1093)
BRCA.Normal (n=112)
BRCA−Basal.Tumor (n=190)
BRCA−Her2.Tumor (n=82)
BRCA−LumA.Tumor (n=564)
BRCA−LumB.Tumor (n=217)
CESC.Tumor (n=304)
CESC.Normal (n=3)
CHOL.Tumor (n=36)
CHOL.Normal (n=9)
COAD.Tumor (n=457)
COAD.Normal (n=41)
DLBC.Tumor (n=48)
ESCA.Tumor (n=184)
ESCA.Normal (n=11)
GBM.Tumor (n=153)
GBM.Normal (n=5)
HNSC.Tumor (n=520)
HNSC.Normal (n=44)
HNSC−HPV+.Tumor (n=97)
HNSC−HPV−.Tumor (n=421)
KICH.Tumor (n=66)
KICH.Normal (n=25)
KIRC.Tumor (n=533)
KIRC.Normal (n=72)
KIRP.Tumor (n=290)
KIRP.Normal (n=32)
LAML.Tumor (n=173)
LGG.Tumor (n=516)
LIHC.Tumor (n=371)
LIHC.Normal (n=50)
LUAD.Tumor (n=515)
LUAD.Normal (n=59)
LUSC.Tumor (n=501)
LUSC.Normal (n=51)
MESO.Tumor (n=87)
OV.Tumor (n=303)
PAAD.Tumor (n=178)
PAAD.Normal (n=4)
PCPG.Tumor (n=179)
PCPG.Normal (n=3)
PRAD.Tumor (n=497)
PRAD.Normal (n=52)
READ.Tumor (n=166)
READ.Normal (n=10)
SARC.Tumor (n=259)
SKCM.Tumor (n=103)
SKCM.Metastasis (n=368)
STAD.Tumor (n=415)
STAD.Normal (n=35)
TGCT.Tumor (n=150)
THCA.Tumor (n=501)
THCA.Normal (n=59)
THYM.Tumor (n=120)
UCEC.Tumor (n=545)
UCEC.Normal (n=35)
UCS.Tumor (n=57)
UVM.Tumor (n=80)

Figure S2.

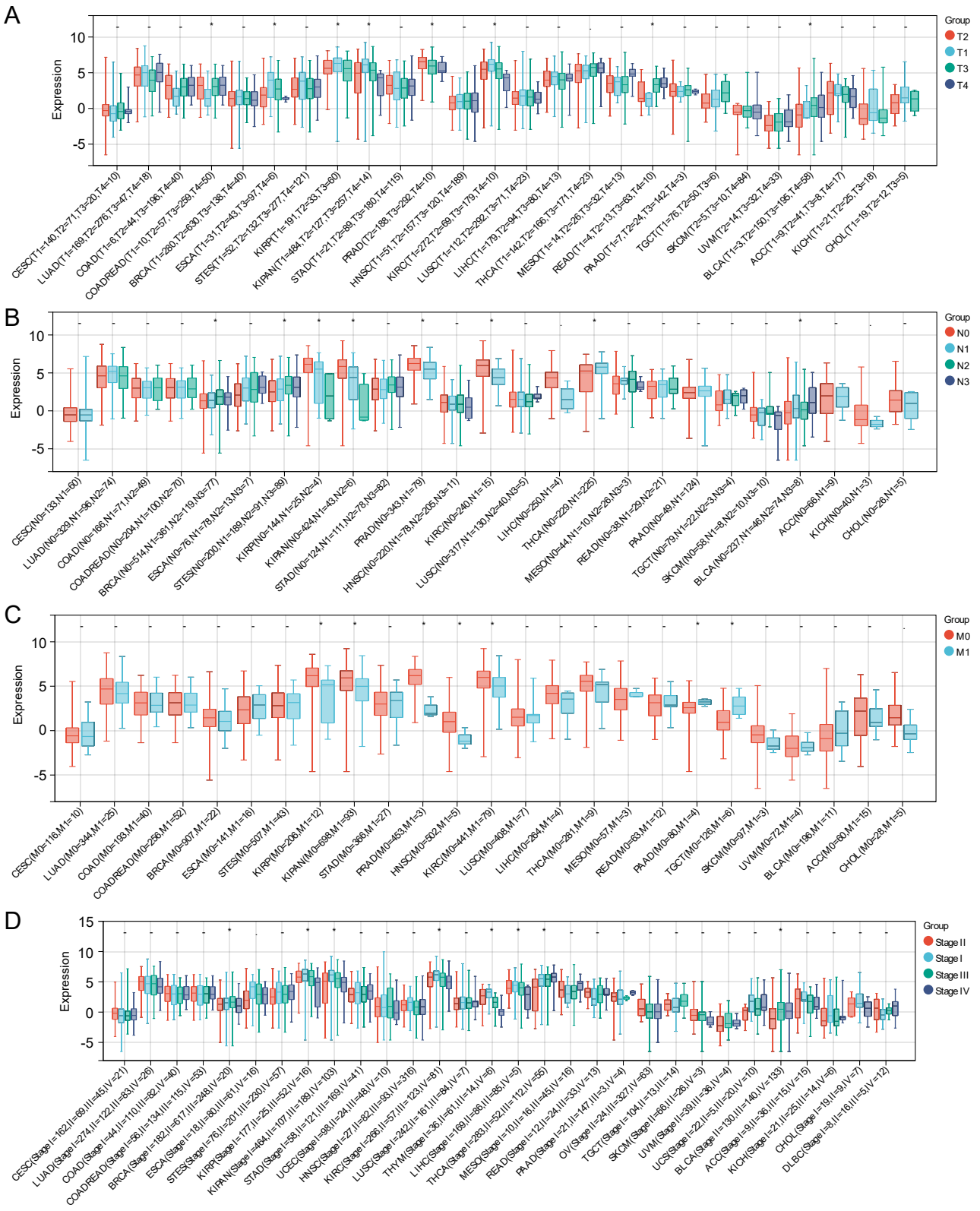

A
Expression
Group
T2
T1
T3
T4
CESC(T1=140,T2=71,T3=20,T4=10)
LUAD(T1=169,T2=276,T3=47,T4=18)
COAD(T1=6,T2=44,T3=196,T4=40)
COADREAD(T1=10,T2=57,T3=259,T4=50)
BRCA(T1=280,T2=630,T3=138,T4=40)
ESCA(T1=31,T2=43,T3=97,T4=6)
STES(T1=52,T2=132,T3=277,T4=14)
KIRP(T1=191,T2=33,T3=60)
KIPAN(T1=484,T2=127,T3=257,T4=121)
STAD(T1=21,T2=89,T3=180,T4=115)
PRAD(T2=188,T3=292,T4=10)
HNSC(T1=51,T2=157,T3=120,T4=189)
KIRC(T1=272,T2=69,T3=179,T4=10)
LUSC(T1=112,T2=292,T3=71,T4=23)
LIHC(T1=179,T2=94,T3=80,T4=13)
THCA(T1=142,T2=166,T3=171,T4=23)
MESO(T1=14,T2=26,T3=32,T4=13)
READ(T1=4,T2=13,T3=63,T4=10)
PAAD(T1=7,T2=24,T3=142,T4=3)
TGCT(T1=76,T2=50,T3=6)
SKCM(T2=5,T3=10,T4=84)
UVM(T2=14,T3=32,T4=33)
BLCA(T1=3,T2=150,T3=195,T4=58)
ACC(T1=9,T2=41,T3=8,T4=17)
KICH(T1=21,T2=25,T3=18)
CHOL(T1=19,T2=12,T3=5)
B
Expression
Group
N0
N1
N2
N3
CESC(N0=133,N1=60)
LUAD(N0=329,N1=96,N2=74)
COAD(N0=166,N1=71,N2=49)
COADREAD(N0=204,N1=100,N2=70)
BRCA(N0=514,N1=361,N2=119,N3=77)
ESCA(N0=76,N1=78,N2=13,N3=7)
STES(N0=200,N1=189,N2=91,N3=89)
KIRP(N0=144,N1=25,N2=4)
KIPAN(N0=424,N1=43,N2=6)
STAD(N0=124,N1=111,N2=78,N3=82)
PRAD(N0=343,N1=79)
HNSC(N0=220,N1=78,N2=205,N3=11)
KIRC(N0=240,N1=15)
LUSC(N0=317,N1=130,N2=40,N3=5)
LIHC(N0=250,N1=4)
THCA(N0=229,N1=225)
MESO(N0=44,N1=10,N2=26,N3=3)
READ(N0=38,N1=29,N2=21)
PAAD(N0=49,N1=124)
TGCT(N0=79,N1=22,N2=3,N3=4)
SKCM(N0=58,N1=8,N2=10,N3=10)
BLCA(N0=237,N1=46,N2=74,N3=8)
ACC(N0=66,N1=9)
KICH(N0=40,N1=3)
CHOL(N0=26,N1=5)
C
Expression
Group
M0
M1
CESC(M0=116,M1=10)
LUAD(M0=344,M1=25)
COAD(M0=193,M1=40)
COADREAD(M0=256,M1=52)
BRCA(M0=907,M1=22)
ESCA(M0=141,M1=16)
STES(M0=597,M1=43)
KIRP(M0=206,M1=12)
KIPAN(M0=698,M1=93)
STAD(M0=366,M1=27)
PRAD(M0=453,M1=3)
HNSC(M0=502,M1=5)
KIRC(M0=441,M1=79)
LUSC(M0=408,M1=7)
LIHC(M0=264,M1=4)
THCA(M0=281,M1=9)
MESO(M0=57,M1=3)
READ(M0=63,M1=12)
PAAD(M0=80,M1=4)
TGCT(M0=126,M1=6)
SKCM(M0=97,M1=3)
UVM(M0=72,M1=4)
BLCA(M0=196,M1=11)
ACC(M0=60,M1=15)
CHOL(M0=28,M1=5)
D
Expression
Group
Stage II
Stage I
Stage III
Stage IV
CESC(Stage I=162,II=69,III=45,IV=21)
LUAD(Stage I=274,II=122,III=83,IV=26)
COAD(Stage I=44,II=110,III=82,IV=40)
COADREAD(Stage I=56,II=134,III=115,IV=53)
BRCA(Stage I=162,II=617,III=248,IV=20)
ESCA(Stage I=18,II=80,III=61,IV=16)
STES(Stage I=76,II=201,III=230,IV=57)
KIRP(Stage I=177,II=25,III=52,IV=16)
KIPAN(Stage I=464,II=107,III=189,IV=103)
STAD(Stage I=58,II=121,III=169,IV=41)
UCEC(Stage I=98,II=24,III=48,IV=10)
HNSC(Stage I=27,II=82,III=93,IV=316)
KIRC(Stage I=266,II=57,III=123,IV=81)
LUSC(Stage I=242,II=161,III=84,IV=7)
THYM(Stage I=36,II=61,III=14,IV=6)
LIHC(Stage I=169,II=86,III=85,IV=5)
THCA(Stage I=283,II=52,III=112,IV=55)
MESO(Stage I=10,II=16,III=45,IV=16)
READ(Stage I=12,II=24,III=33,IV=13)
PAAD(Stage I=21,II=147,III=3,IV=4)
OV(Stage I=24,III=327,IV=63)
TGCT(Stage I=104,II=13,III=14)
SKCM(Stage I=66,II=26,IV=3)
UVM(Stage I=39,III=36,IV=4)
UCS(Stage I=22,II=5,III=20,IV=10)
BLCA(Stage I=130,III=140,IV=133)
ACC(Stage I=9,II=36,III=15,IV=15)
KICH(Stage I=21,II=25,III=14,IV=6)
CHOL(Stage I=19,II=9,IV=7)
DLBC(Stage I=8,II=16,III=5,IV=12)

Figure S3.

A
Cancer Code
pvalue
Hazard Ratio(95% CI)
TCGA-GBMLGG(N=619) 8.1e-40 1.48(1.40,1.57)
TCGA-LGG(N=474) 9.3e-11 1.53(1.34,1.74)
TCGA-LAML(N=209) 0.02 1.12(1.02,1.23)
TCGA-ACC(N=77) 0.03 1.21(1.01,1.45)
TCGA-LUSC(N=468) 0.04 1.09(1.00,1.18)
TARGET-ALL-R(N=99) 0.04 1.13(1.00,1.27)
TCGA-BLCA(N=396) 0.05 1.07(1.00,1.13)
TCGA-UVM(N=74) 0.07 1.28(0.98,1.66)
TCGA-STES(N=547) 0.11 1.06(0.99,1.13)
TARGET-LAML(N=142) 0.16 1.06(0.98,1.16)
TCGA-DLBC(N=44) 0.17 1.44(0.85,2.42)
TCGA-CESC(N=273) 0.19 1.08(0.96,1.21)
TCGA-ESCA(N=173) 0.25 1.07(0.96,1.19)
TCGA-STAD(N=372) 0.26 1.05(0.97,1.14)
TCGA-BRCA(N=1044) 0.27 1.06(0.95,1.19)
TCGA-PRAD(N=492) 0.35 1.28(0.76,2.18)
TARGET-ALL-BM(N=86) 0.38 1.07(0.92,1.24)
TCGA-KICH(N=64) 0.47 1.08(0.87,1.35)
TCGA-GBM(N=144) 0.51 1.03(0.94,1.13)
TCGA-LCS(N=50) 0.52 1.05(0.90,1.22)
TARGET-WT(N=80) 0.55 1.05(0.89,1.24)
TCGA-UCEC(N=166) 0.56 1.04(0.91,1.18)
TCGA-READ(N=80) 0.56 1.11(0.79,1.57)
TCGA-COADREAD(N=368) 0.64 1.03(0.91,1.17)
TCGA-TGCT(N=128) 0.65 1.20(0.55,2.62)
TCGA-CHOL(N=33) 0.71 1.05(0.81,1.36)
TCGA-COAD(N=279) 0.78 1.02(0.89,1.17)
TCGA-OV(N=407) 0.79 1.01(0.05,1.08)
TCGA-SKCM-P(N=97) 0.86 1.02(0.84,1.24)
TCGA-HNSC(N=509) 0.90 1.01(0.89,1.09)
TCGA-KIRC(N=515) 5.6e-6 0.85(0.80,0.91)
TCGA-KIRP(N=276) 1.8e-3 0.82(0.73,0.93)
TCGA-THCA(N=501) 2.8e-3 0.73(0.07,0.93)
TCGA-THYM(N=117) 6.3e-3 0.59(0.30,0.88)
TARGET-NBL(N=151) 0.03 0.85(0.73,0.99)
TCGA-LUAD(N=490) 0.05 0.93(0.87,1.00)
TCGA-MESO(N=84) 0.05 0.85(0.80,1.00)
TCGA-KIPAN(N=855) 0.39 0.98(0.94,1.03)
TCGA-SKCM(N=444) 0.48 0.98(0.91,1.05)
TCGA-SKCM-M(N=347) 0.48 0.97(0.90,1.05)
TCGA-SARC(N=254) 0.59 0.98(0.90,1.06)
TCGA-LIHC(N=341) 0.71 0.98(0.88,1.09)
TCGA-PCPG(N=170) 0.73 0.91(0.54,1.55)
TCGA-PRAD(N=172) 0.82 0.99(0.88,1.11)
-1.2 -1.0 -0.8 -0.6 -0.4 -0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2
log2(Hazard Ratio(95%CI))
B
Cancer Code
pvalue
Hazard Ratio(95% CI)
TCGA-GBMLGG(N=616) 1.5e-29 1.39(1.31,1.48)
TCGA-LGG(N=472) 1.4e-5 1.27(1.14,1.41)
TCGA-LUSC(N=467) 0.02 1.12(1.02,1.24)
TCGA-PCPG(N=168) 0.04 1.40(1.03,1.91)
TCGA-UVM(N=73) 0.08 1.24(0.97,1.57)
TCGA-UCS(N=55) 0.09 1.14(0.98,1.32)
TCGA-DLBC(N=43) 0.10 1.50(0.92,2.45)
TCGA-CESC(N=273) 0.12 1.09(0.98,1.22)
TCGA-GBM(N=143) 0.13 1.08(0.98,1.20)
TCGA-ACC(N=76) 0.13 1.11(0.97,1.28)
TCGA-TGCT(N=126) 0.14 1.18(0.94,1.47)
TCGA-BLCA(N=397) 0.15 1.09(0.96,1.24)
TCGA-COADREAD(N=363) 0.21 1.08(0.96,1.22)
TCGA-COAD(N=275) 0.26 1.08(0.95,1.22)
TCGA-ESCA(N=173) 0.46 1.04(0.94,1.15)
TCGA-READ(N=84) 0.59 1.06(0.87,1.29)
TCGA-STES(N=548) 0.62 1.03(0.95,1.09)
TCGA-UCEC(N=166) 0.62 1.03(0.92,1.15)
TCGA-READ(N=88) 0.63 1.08(0.78,1.50)
TCGA-STAD(N=375) 0.66 1.02(0.93,1.11)
TCGA-BRCA(N=1043) 0.73 1.02(0.91,1.14)
TCGA-THCA(N=499) 0.95 1.00(0.88,1.14)
TCGA-KIRC(N=508) 3.5e-6 0.85(0.79,0.91)
TCGA-KIRP(N=273) 1.1e-4 0.81(0.73,0.90)
TCGA-PRAD(N=492) 2.3e-4 0.79(0.69,0.89)
TCGA-LUAD(N=486) 0.05 0.93(0.87,1.00)
TCGA-KIPAN(N=845) 0.07 0.95(0.90,1.00)
TCGA-PAAD(N=171) 0.09 0.91(0.82,1.01)
TCGA-MESO(N=82) 0.10 0.91(0.81,1.02)
TCGA-THYM(N=117) 0.15 0.82(0.63,1.07)
TCGA-OV(N=407) 0.21 0.96(0.91,1.02)
TCGA-SKCM-R(N=96) 0.32 0.91(0.75,1.10)
TCGA-SKCM(N=434) 0.42 0.98(0.92,1.04)
TCGA-HNSC(N=508) 0.60 0.98(0.90,1.06)
TCGA-SKCM-M(N=338) 0.65 0.99(0.92,1.05)
TCGA-CHOL(N=33) 0.76 0.96(0.76,1.22)
TCGA-SARC(N=250) 0.77 0.99(0.92,1.07)
TCGA-LIHC(N=340) 0.96 1.00(0.91,1.09)
-0.6 -0.4 -0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2
log2(Hazard Ratio(95%CI))
C
Cancer Code
pvalue
Hazard Ratio(95% CI)
TCGA-GBMLGG(N=598) 4.8e-38 1.50(1.41,1.60)
TCGA-LGG(N=466) 1.1e-10 1.56(1.36,1.78)
TCGA-ACC(N=75) 0.02 1.25(1.03,1.51)
TCGA-UVM(N=74) 0.07 1.29(0.98,1.69)
TCGA-UCEC(N=164) 0.09 1.14(0.98,1.33)
TCGA-CESC(N=269) 0.10 1.11(0.98,1.26)
TCGA-DLBC(N=44) 0.10 1.98(0.84,4.67)
TCGA-COADREAD(N=347) 0.11 1.17(0.96,1.41)
TCGA-LUSC(N=418) 0.13 1.10(0.97,1.24)
TCGA-COAD(N=263) 0.17 1.15(0.94,1.41)
TCGA-ESCA(N=173) 0.21 1.09(0.95,1.25)
TCGA-STES(N=524) 0.23 1.05(0.97,1.14)
TCGA-BRCA(N=1025) 0.32 1.08(0.93,1.25)
TCGA-BLCA(N=385) 0.33 1.04(0.96,1.12)
TCGA-CHOL(N=32) 0.40 1.12(0.86,1.46)
TCGA-READ(N=84) 0.42 1.29(0.69,2.42)
TCGA-GBM(N=131) 0.43 1.04(0.94,1.15)
TCGA-KICH(N=64) 0.46 1.10(0.86,1.40)
TCGA-STAD(N=351) 0.58 1.03(0.93,1.14)
TCGA-TGCT(N=128) 0.67 1.20(0.52,2.77)
TCGA-LCS(N=53) 0.74 1.03(0.87,1.22)
TCGA-KIRC(N=504) 1.7e-9 0.79(0.74,0.86)
TCGA-KIRP(N=272) 8.3e-6 0.75(0.66,0.86)
TCGA-THCA(N=495) 1.3e-4 0.67(0.53,0.85)
TCGA-KIPAN(N=840) 1.8e-3 0.92(0.87,0.97)
TCGA-THYM(N=117) 9.5e-3 0.48(0.25,0.90)
TCGA-LUAD(N=457) 0.02 0.93(0.82,0.98)
TCGA-SKCM(N=438) 0.26 0.96(0.89,1.03)
TCGA-HNSC(N=485) 0.28 0.95(0.85,1.05)
TCGA-SKCM-P(N=97) 0.30 0.88(0.70,1.12)
TCGA-SARC(N=248) 0.31 0.95(0.87,1.05)
TCGA-SKCM-M(N=341) 0.42 0.97(0.89,1.05)
TCGA-PRAD(N=490) 0.55 0.84(0.47,1.50)
TCGA-PAAD(N=166) 0.78 0.98(0.87,1.11)
TCGA-LIHC(N=333) 0.79 0.98(0.86,1.12)
TCGA-MESO(N=64) 0.84 0.99(0.86,1.13)
TCGA-PCPG(N=170) 0.84 0.94(0.50,1.77)
TCGA-OV(N=378) 0.88 0.99(0.93,1.07)
-1.5 -1.0 -0.5 0.0 0.5 1.0 1.5 2.0
log2(Hazard Ratio(95%CI))

Figure S4.

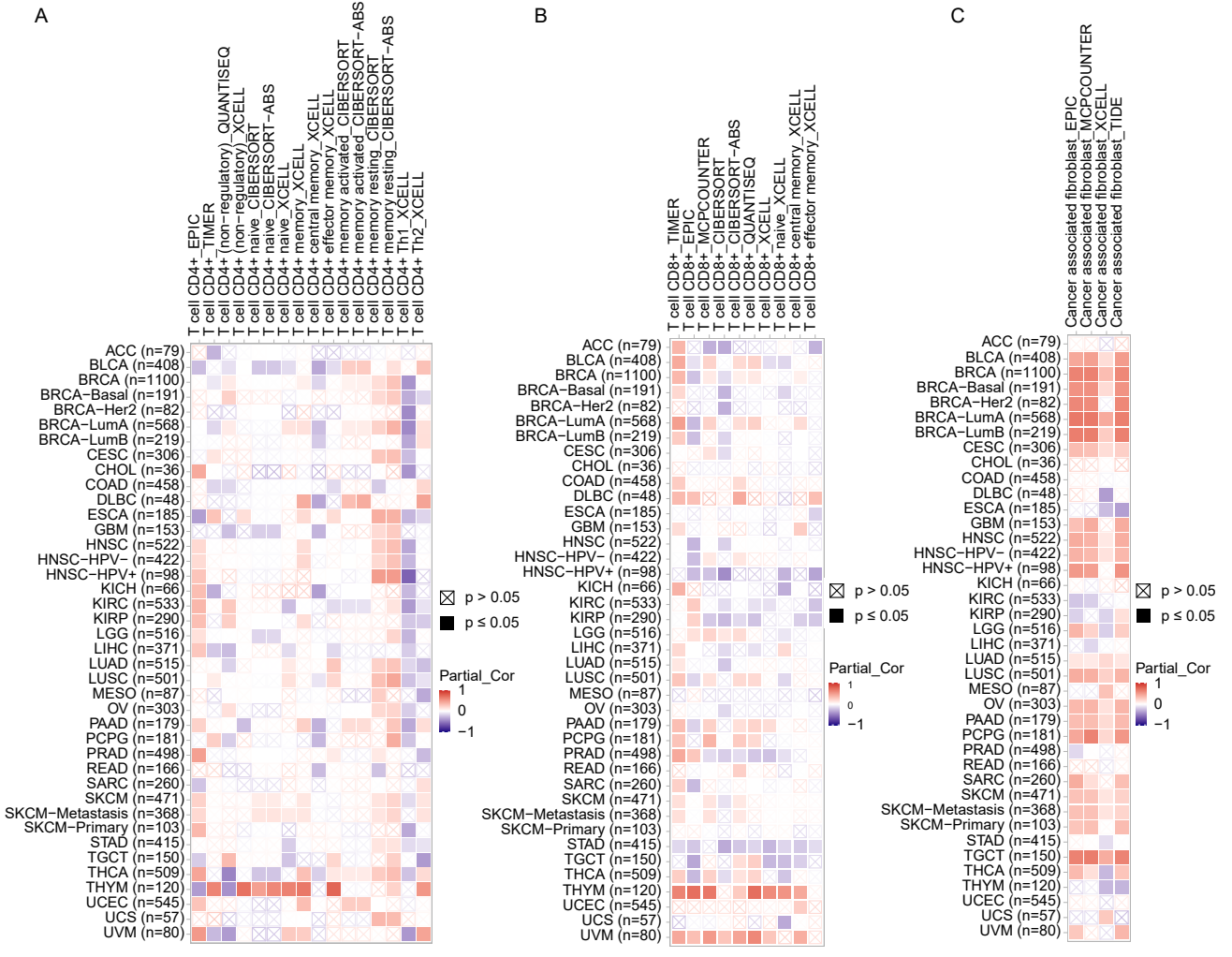
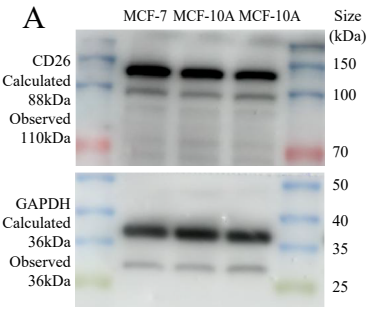
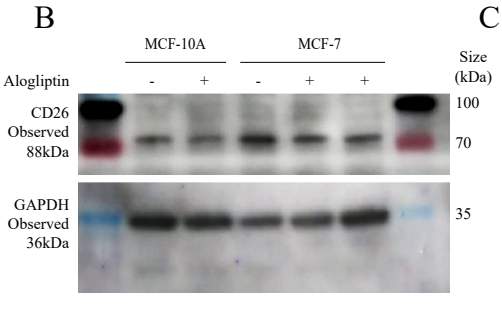
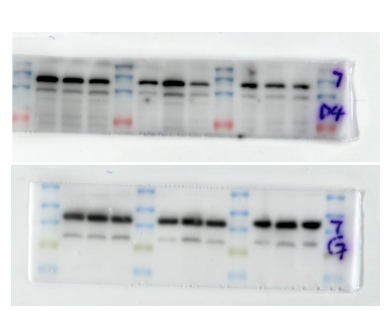
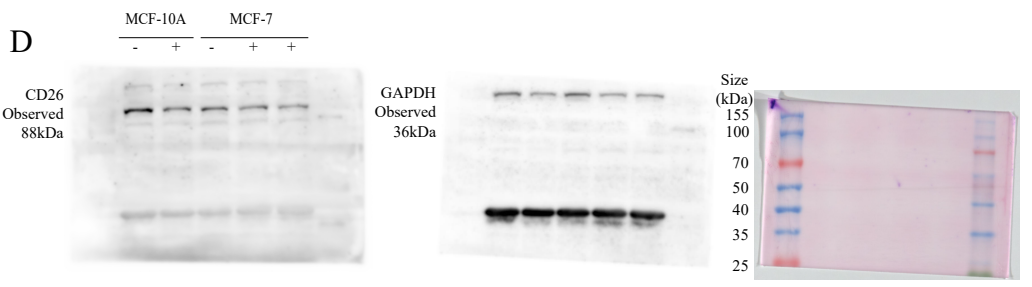

A
T cell CD4+_EPIC
T cell CD4+_TIMER
T cell CD4+_(non−regulatory)_QUANTISEQ
T cell CD4+_(non−regulatory)_XCELL
T cell CD4+_naive_CIBERSORT
T cell CD4+_naive_CIBERSORT−ABS
T cell CD4+_naive_XCELL
T cell CD4+_memory_XCELL
T cell CD4+_central memory_XCELL
T cell CD4+_effector memory_XCELL
T cell CD4+_memory activated_CIBERSORT
T cell CD4+_memory activated_CIBERSORT−ABS
T cell CD4+_memory resting_CIBERSORT
T cell CD4+_memory resting_CIBERSORT−ABS
T cell CD4+_Th1_XCELL
T cell CD4+_Th2_XCELL
ACC (n=79)
BLCA (n=408)
BRCA (n=1100)
BRCA−Basal (n=191)
BRCA−Her2 (n=82)
BRCA−LumA (n=568)
BRCA−LumB (n=219)
CESC (n=306)
CHOL (n=36)
COAD (n=458)
DLBC (n=48)
ESCA (n=185)
GBM (n=153)
HNSC (n=522)
HNSC−HPV− (n=422)
HNSC−HPV+ (n=98)
KICH (n=66)
KIRC (n=533)
KIRP (n=290)
LGG (n=516)
LIHC (n=371)
LUAD (n=515)
LUSC (n=501)
MESO (n=87)
OV (n=303)
PAAD (n=179)
PCPG (n=181)
PRAD (n=498)
READ (n=166)
SARC (n=260)
SKCM (n=471)
SKCM−Metastasis (n=368)
SKCM−Primary (n=103)
STAD (n=415)
TGCT (n=150)
THCA (n=509)
THYM (n=120)
UCEC (n=545)
UCS (n=57)
UVM (n=80)
p > 0.05
p ≤ 0.05
Partial_Cor
1
0
−1
B
T cell CD8+_TIMER
T cell CD8+_EPIC
T cell CD8+_MCPCOUNTER
T cell CD8+_CIBERSORT
T cell CD8+_CIBERSORT−ABS
T cell CD8+_QUANTISEQ
T cell CD8+_XCELL
T cell CD8+ naive_XCELL
T cell CD8+ central memory_XCELL
T cell CD8+ effector memory_XCELL
ACC (n=79)
BLCA (n=408)
BRCA (n=1100)
BRCA−Basal (n=191)
BRCA−Her2 (n=82)
BRCA−LumA (n=568)
BRCA−LumB (n=219)
CESC (n=306)
CHOL (n=36)
COAD (n=458)
DLBC (n=48)
ESCA (n=185)
GBM (n=153)
HNSC (n=522)
HNSC−HPV− (n=422)
HNSC−HPV+ (n=98)
KICH (n=66)
KIRC (n=533)
KIRP (n=290)
LGG (n=516)
LIHC (n=371)
LUAD (n=515)
LUSC (n=501)
MESO (n=87)
OV (n=303)
PAAD (n=179)
PCPG (n=181)
PRAD (n=498)
READ (n=166)
SARC (n=260)
SKCM (n=471)
SKCM−Metastasis (n=368)
SKCM−Primary (n=103)
STAD (n=415)
TGCT (n=150)
THCA (n=509)
THYM (n=120)
UCEC (n=545)
UCS (n=57)
UVM (n=80)
p > 0.05
p ≤ 0.05
Partial_Cor
1
0
−1
C
Cancer associated fibroblast_EPIC
Cancer associated fibroblast_MCPCOUNTER
Cancer associated fibroblast_XCELL
Cancer associated fibroblast_TIDE
ACC (n=79)
BLCA (n=408)
BRCA (n=1100)
BRCA−Basal (n=191)
BRCA−Her2 (n=82)
BRCA−LumA (n=568)
BRCA−LumB (n=219)
CESC (n=306)
CHOL (n=36)
COAD (n=458)
DLBC (n=48)
ESCA (n=185)
GBM (n=153)
HNSC (n=522)
HNSC−HPV− (n=422)
HNSC−HPV+ (n=98)
KICH (n=66)
KIRC (n=533)
KIRP (n=290)
LGG (n=516)
LIHC (n=371)
LUAD (n=515)
LUSC (n=501)
MESO (n=87)
OV (n=303)
PAAD (n=179)
PCPG (n=181)
PRAD (n=498)
READ (n=166)
SARC (n=260)
SKCM (n=471)
SKCM−Metastasis (n=368)
SKCM−Primary (n=103)
STAD (n=415)
TGCT (n=150)
THCA (n=509)
THYM (n=120)
UCEC (n=545)
UCS (n=57)
UVM (n=80)
p > 0.05
p ≤ 0.05
Partial_Cor
1
0
−1

Figure S5. Full Western Blot Images









A. The uncropped Western Blot images of Figure4B. B. The uncropped Western Blot images of Figure4D.

C. The uncropped Western Blot images of Figure S5A. D. The full uncropped Western Blot images of another set of experiment results on CD26 expression in MCF-7 and MCF-10A cells with or with no Alogliptin.