a
Angiogenic_EC
ML_1
Macro_SPP1
Cycling
ecm_myCAF
40
30
20
10
BC
b
Plasma_1
Plasma_2
Macro_CXCL10
Cycing_CAF
Angiogenic_1
Ecm_myCAF_1
Wound_myCAF
Angiogenic_2
Cycing_End
End_progenitor
NDRG1+Epi
Cycling_Epi
Treg_1
Macro_SPP1
CD8Pro_1
CD8Teff_2
NK_2
100
80
60
40
20
ESCA
c
Ductal_cell_A_3
Ductal_cell_A_2
Ductal_cell_A_5
Plasma_3
Mast
Th
Treg
mature_cDC
GC_B_2
pDC1
Follicular_B_cell
Angiogenic_1
Arterial_1
Ductal_cell_A_1
Basal
Angiogenic_2
Angiogenic_4
Detox_iCAF_2
Wound_myCAF_1
Ecm_myCAF_3
Ecm_myCAF_1
Wound_myCAF_2
Ecm_myCAF_2
150
100
50
0
PDAC
d
NA
Interleukin−4 and Interleukin−13 signaling
Chemokine receptors bind chemokines
Signaling by NOTCH2
Signaling by NOTCH1 HD Domain Mutants in Cancer
Signaling by NOTCH3
NOTCH2 Activation and Transmission of Signal to the Nucleus
Signaling by Receptor Tyrosine Kinases
Cell surface interactions at the vascular wall
Interferon gamma signaling
GPCR downstream signalling
Signaling by Interleukins
Neutrophil degranulation
Chemokine receptors bind chemokines_1
Cell surface interactions at the vascular wall_1
Interleukin−10 signaling
Peptide ligand−binding receptors
Adaptive Immune System
Cytokine Signaling in Immune system
MAPK family signaling cascades
Peptide ligand−binding receptors_1
Chemokine receptors bind chemokines_2
Negative regulation of the PI3K/AKT network
PI3K/AKT Signaling in Cancer
Constitutive Signaling by Aberrant PI3K in Cancer
Interleukin−10 signaling_1
Signaling by Interleukins_1
Signaling by Receptor Tyrosine Kinases_1
Cytokine Signaling in Immune system_1
Cell surface interactions at the vascular wall_2
0
10
20
−log10(pvalue)
subTME
subTME−ICI
subTME−IS
subTME−MRM
subTME−PSE
BC
e
NA
Signaling by Interleukins_1
Pre−NOTCH Processing in the Endoplasmic Reticulum
Defective LFNG causes SCDO3
Signaling by Receptor Tyrosine Kinases
Hemostasis
Platelet degranulation
Adaptive Immune System
Neutrophil degranulation
GPCR ligand binding
Interleukin−10 signaling
Chemokine receptors bind chemokines
Signaling by Interleukins
Peptide ligand−binding receptors
Cell surface interactions at the vascular wall
Cytokine Signaling in Immune system
Signaling by VEGF
NOTCH2 Activation and Transmission of Signal to the Nucleus
Neurophilin interactions with VEGF and VEGFR
Chemokine receptors bind chemokines_1
VEGF ligand−receptor interactions
VEGF binds to VEGFR leading to receptor dimerization
Peptide ligand−binding receptors_1
Signaling by Interleukins_2
Signaling by Receptor Tyrosine Kinases_1
Neutrophil degranulation_1
Cell surface interactions at the vascular wall_1
0
10
20
−log10(pvalue)
subTME
subTME−ICI
subTME−IS
subTME−MRM
subTME−PSE
CRC
f
NA
TNFs bind their physiological receptors_2
Signaling by Receptor Tyrosine Kinases
Interleukin−4 and Interleukin−13 signaling_1
Interleukin−10 signaling_1
Signaling by Interleukins_2
Cytokine Signaling in Immune system_2
Interleukin−4 and Interleukin−13 signaling
TNFs bind their physiological receptors_1
Peptide ligand−binding receptors_1
Signaling by GPCR
GPCR ligand binding
TNFR2 non−canonical NF−kB pathway
Neutrophil degranulation_1
Cytokine Signaling in Immune system_1
Cell surface interactions at the vascular wall
Chemokine receptors bind chemokines
Interferon gamma signaling
Peptide ligand−binding receptors
Interleukin−10 signaling
Signaling by Interleukins
TNFs bind their physiological receptors
Neutrophil degranulation
Adaptive Immune System
Cytokine Signaling in Immune system
0
10
20
−log10(pvalue)
subTME
subTME−ICI
subTME−IS
subTME−MRM
subTME−PSE
ESCA
g
NA
Signaling by VEGF
Nervous system development
VEGF ligand−receptor interactions
VEGF binds to VEGFR leading to receptor dimerization
Interleukin−4 and Interleukin−13 signaling
Signaling by PDGF
PI3K/AKT Signaling in Cancer
Constitutive Signaling by Aberrant PI3K in Cancer
Chemokine receptors bind chemokines
Signaling by Interleukins
Peptide ligand−binding receptors
Signaling by Receptor Tyrosine Kinases
PI3K/AKT Signaling in Cancer_1
Signaling by PDGF_1
Constitutive Signaling by Aberrant PI3K in Cancer_1
Interleukin−4 and Interleukin−13 signaling_1
Signaling by Interleukins_2
Peptide ligand−binding receptors_2
Neutrophil degranulation
Signaling by Receptor Tyrosine Kinases_2
Cytokine Signaling in Immune system_1
Platelet activation, signaling and aggregation
Signaling by Receptor Tyrosine Kinases_1
TNFR2 non−canonical NF−kB pathway
Chemokine receptors bind chemokines_1
Platelet degranulation
Signaling by Interleukins_1
Interleukin−10 signaling
Peptide ligand−binding receptors_1
Adaptive Immune System
Cytokine Signaling in Immune system
0
5
10
15
20
25
−log10(pvalue)
subTME
subTME−ICI
subTME−IS
subTME−MRM
subTME−PSE
PDAC