

TGF_beta

No_TGF_sig

TGF_sig

Hedgehog

SHH_OFF

SHH_Basal

SHH_ON

GF_P13K

Basal_P13K

Oscill_P13K

Adhesion

Unanchored

Attached

Neighbors

CIP

Contact_Inhibition

Can_Stretch

Migration_SW

Nonmigrating

Slow_Migrating

Fast_Migrating

EMT

Epithelial

Hybrid_EM

Mesenchymal

Restriction_SW

Before_RP

Post_RP

Phase_SW

G0_G1

G2

SAC

Cell_Cycle_Process

Quiescence

CellCycle

Apoptotic_SW

Survival

Apoptosis

Neighbors

CellDensity_High

CellDensity_Low

Matrix

COL1_3

Elastin

Laminin_5a

Collagen_4

Basement_Membrane

Fibronectin

MMP2

MMP7

MMP9

ECM

Stiff_ECM

Transforming_env

TGFb_ext

SHH_ext

Self_Loop

TGF_beta - TGF_sig

TGF_bRII

TGF_bRI

SMAD2_3_4

ILK_Rictor

HMGA2

p15

DUSP4

Runx1

Hedgehog - SHH_ON

SHH_secr

PTCH1

SMO

SUFU

GLI

GLI_H

GLI3R

HHIP

CEBP_alpha

GrowthFactor_Env

GF

GF_High

GF_Basal_MAPK

RTK

Shc

Grb2

SOS

Ras

RAF

MEK

ERK

MCRP1

mTORC2

PI3K

PIP3

PDK1

AKT_B

GF_P13K

p110_H

PI3K_H

AKT_H

FoxO3

PLCgamma

IP3

Ca2p

Nedd4L

GF_mTOR

TSC2

PRAS40

DAG

Rheb

mTORC1

S6K

h_4EBP1

eIF4E

GF_connect

GSK3

FoxO1

p21_mRNA

IKKa

NfKB

c_Myb

Adhesion

Integrin

ILK

FAK

Src

Nectin3

Nect5

SPRY2

J_Ecadherin

J_bcatenin

J_acatenin

CIP - Can_Stretch

FocalAdhesions

Stress_Fibers

YAP

TRIO

WT1

TAZ

Ecadherin_mRNA_H

ApicalBasal_Pol

N_bcatenin

Mst1_2

Lats1_2

AMOT

miR_29c

PTEN_c

Migration_SW - Fast_Migrating

Merlin

IQGAP1_LeadingE

Rassf1a

RhoA

Horizontal_Pol

Rac1

Rac1_H

PAK1

Migration

Fast_Migration

EMT - Mesenchymal

SNAI1

LEF1

Twist

SNAI2

ZEB1

N_bcatenin_H

ZEB1_H

b_catenin_TCF4

ZEB2

HMGA1

TGFb_secr

miR_34

miR_200_b

miR_200_c

Ecadherin_mRNA

Restriction_SW - Before_RP

p21

pRB

p27Kip1

Myc

CyclinD1

E2F1

CyclinE

Origin_Licensing

ORC

Cdc6

Cdt1

Pre_RC

geminin

Phase_SW - G0_G1

CyclinA_mRNA

Emi1

FoxM1

Cdc25A

CyclinA

Wee1

UbcH10

CyclinB

Cdc25B

Plk1

Cdc25C

Cdk1

pAPC

Cdc20

Cdh1

Cell_Cycle_Process - Quiescence

Replication

ATR

CHK1

FIN_DNA

U_Kinetochores

Mad2

A_Kinetochores

Plk1_H

Ect1

Cytokinesis

TRAIL

Trail

Apoptotic_SW - Survival

DR4_5

Casp8

Casp2

MCL_1

BCLXL

BCL2

BAD

BIK

BIM

BID

BAK

BAX

Cyto_C

SMAC

IAPs

Casp9

Casp3

DNA_Fragmentation

CAD

Time