## TIGHT JUNCTION Paracellular space CRB3 Inside CDC42 ► PARD6A MPP5 MPP4 PATJ MPDZ TJP3 NF2 (Adherens junction ARHGAP17 Cell polarity & proliferation CDC42 AMOT RAC1 PPP2CA -p PRKCI DLG1 LLGL2 Cell polarity CLDN24 CLDN24 +p SCRIB Cell polarity PARD3 TIAM1 RAC1 OCLN OCLN DLG2 Cell polarity F11R TJP1 TJAP1 F11R +u DLG3 NEDD4L Decreased paracellular permeability BVES ARHGEF2 RHOA CLDN24 TJP1 GATA4 **►O** DNA **BVES** CGNL1 MARVELD3MARVELD3 MAP3K1 MAPK8 JUN CD1A **►**O-Cell survival DNA PCNA Reduced cell proliferation CCND1 CDK4 OCLN OCLN TJP1 YBX3 DNA Cell differentiation SYMPK ERBB2 RUNX1 HSPA4 CFTR PRKCE Tight junction assembly SLC9A3R1 MSN ACTB ER Stress CACNA1D ►0— Ca<sup>2+</sup> MAP3K5 MAP2K7 Tight junction disruption +p SRC MAPK8 OCLN OCLN TJP1 ACTR3 Actin assembly CTTN ACTB PPP2CA WHAMM OCLN OCLN TJP1 VASP PRKACA RAB13 Tight junction assembly ARHGEF18 CGN RHOA ► ROCK1 MYL2 PARD3 CLDN24 CLDN24 Regulation of actin cytoskeleton EPB41L4B PATJ PARD3 ► PRKAG2 Cell polarity PRKCI MYL12B STK11 MYL2 PARD6A SYNPO Adherens junction assembly RAB8A MAGI1 IGSF5 IGSF5 ACTB Tight junction assembly MICALL2 ACTN4 RAB13 RAPGEF6 Cell migration RAP1A ITGB1 F11R F11R AFDN F11R F11R Decreased paracellular permeability RAPGEF2 RAP2C RHOA ► ROCK1 MYL2 TJP1 TJP1 ACTR3 **₩** WHAMM MARVELD2MARVELD2 CDC42 TUBA1B Actin assembly ACTB 04530 1/11/17 (c) Kanehisa Laboratories