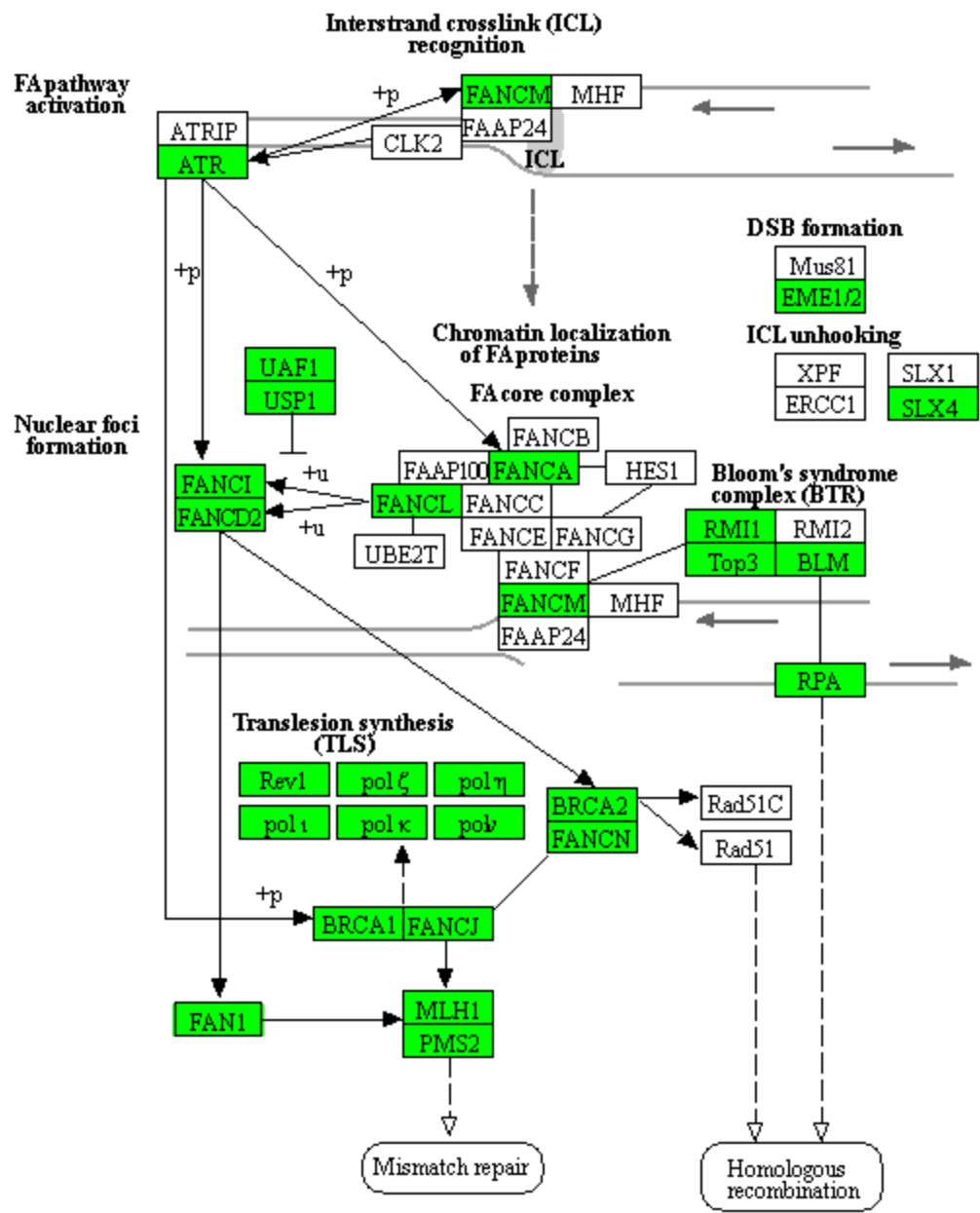
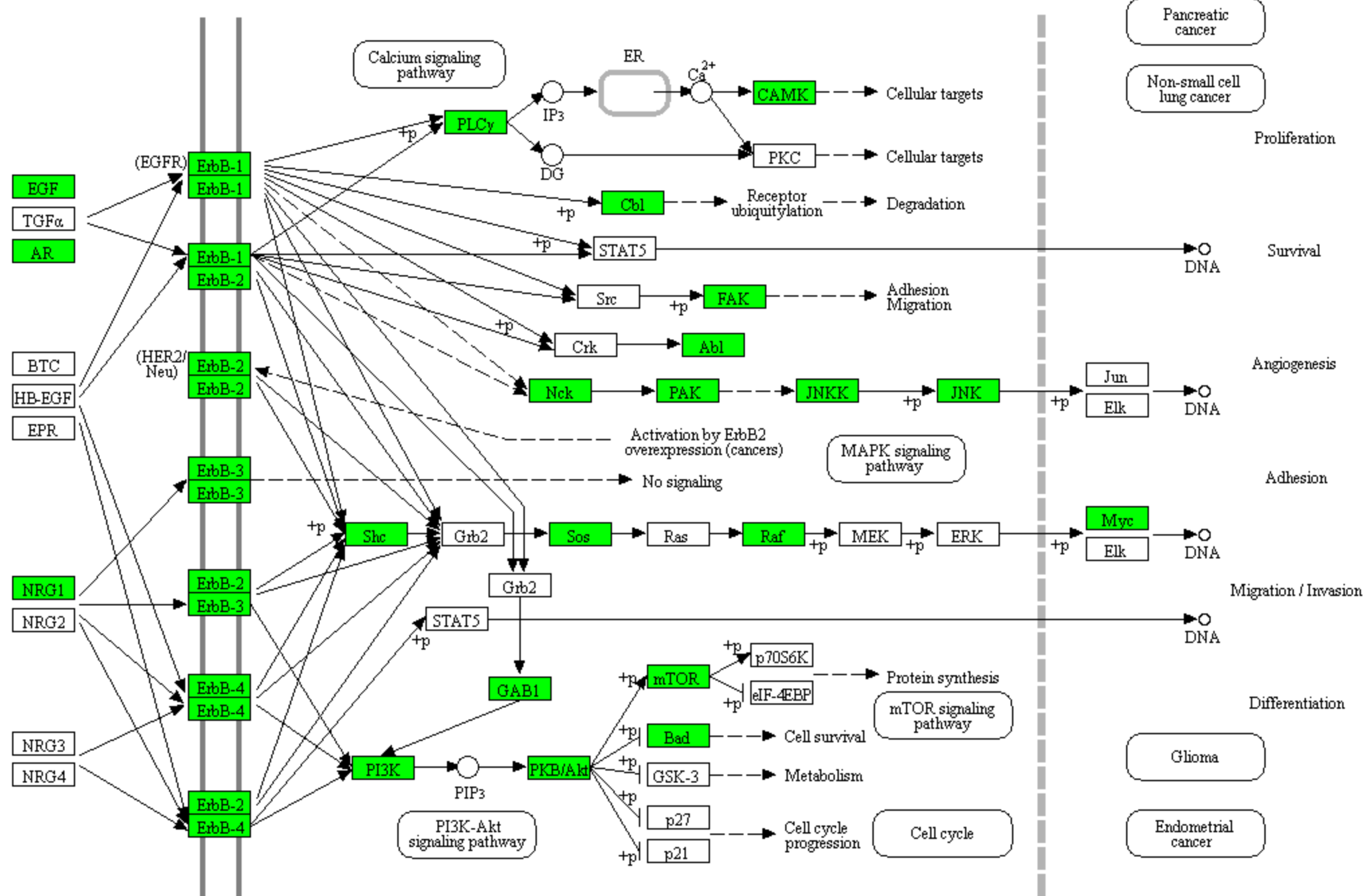
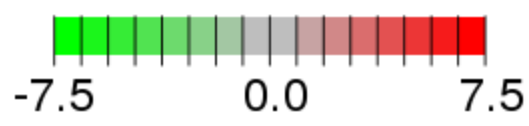


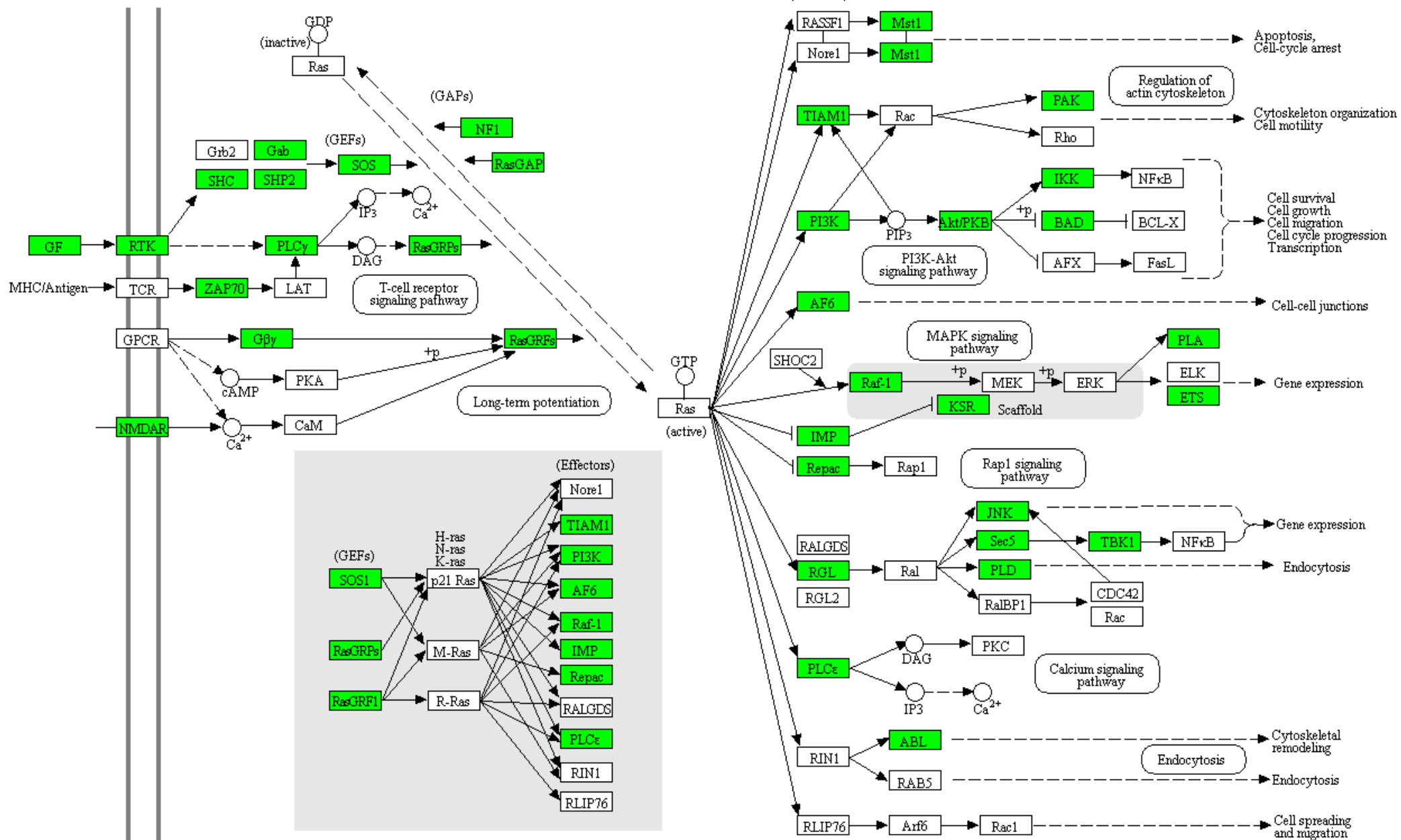
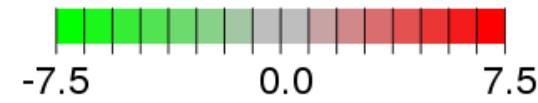
FANCONI ANEMIA PATHWAY



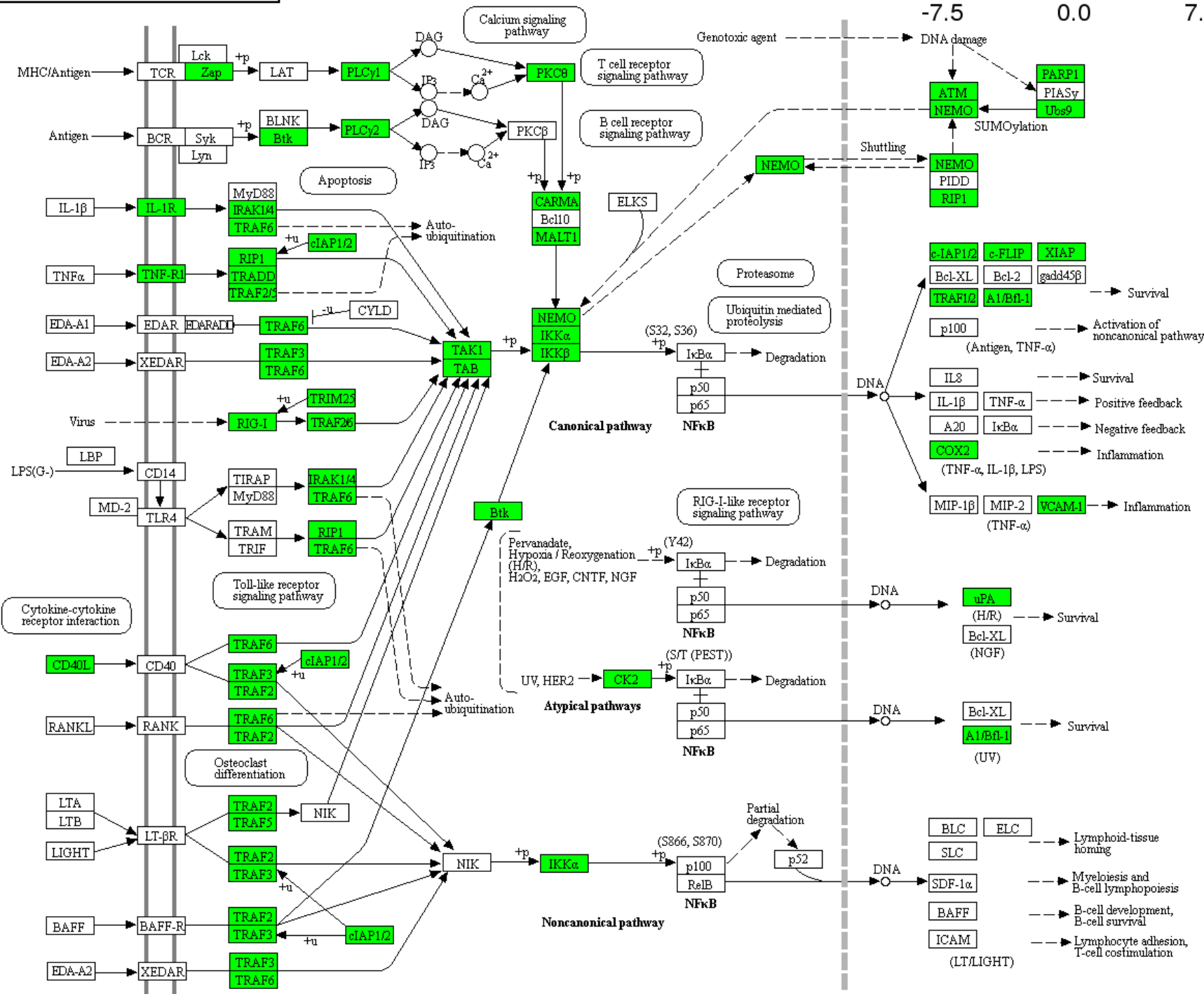
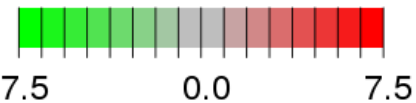
ERBB SIGNALING PATHWAY



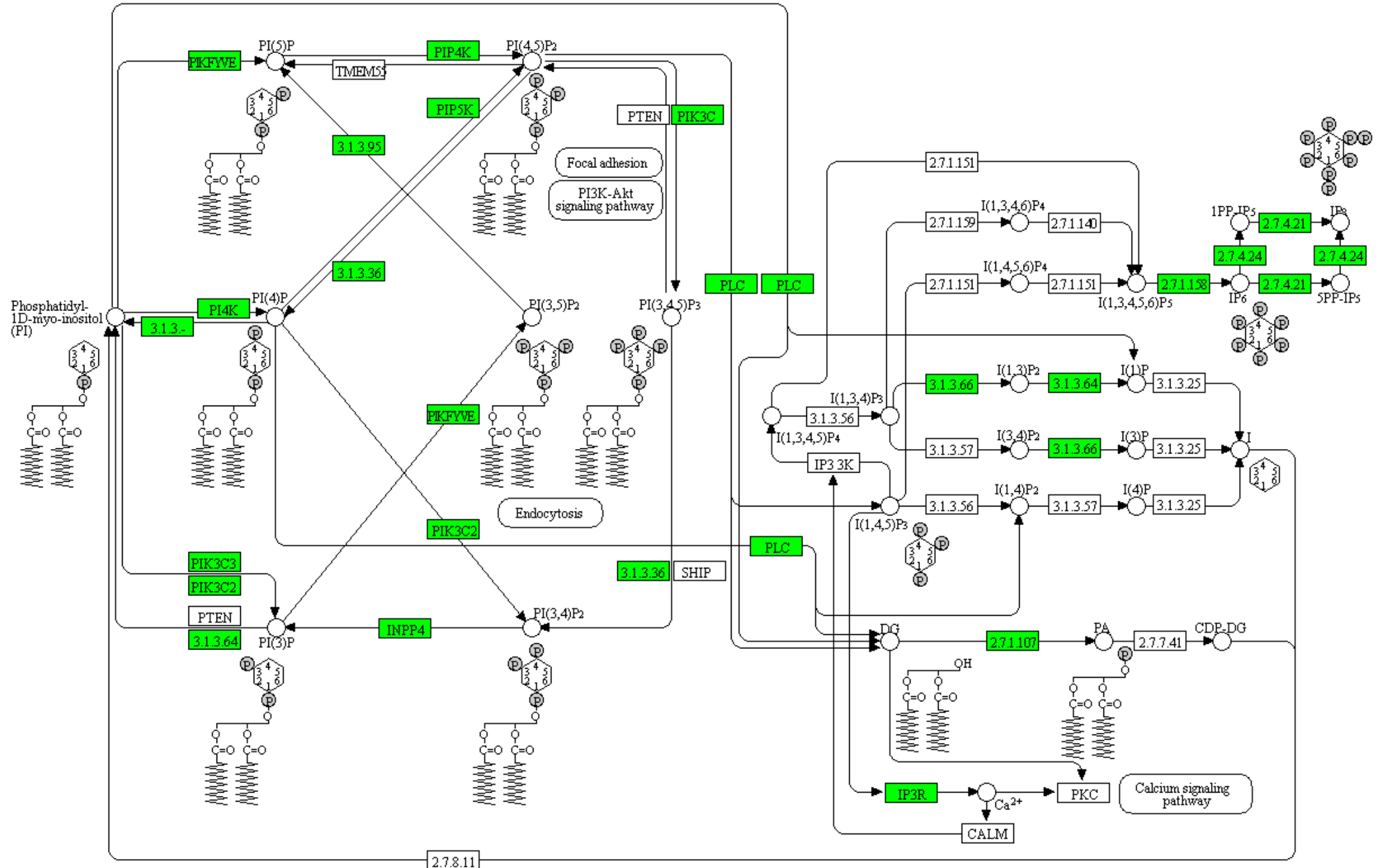
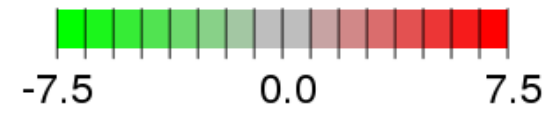
RAS SIGNALING PATHWAY



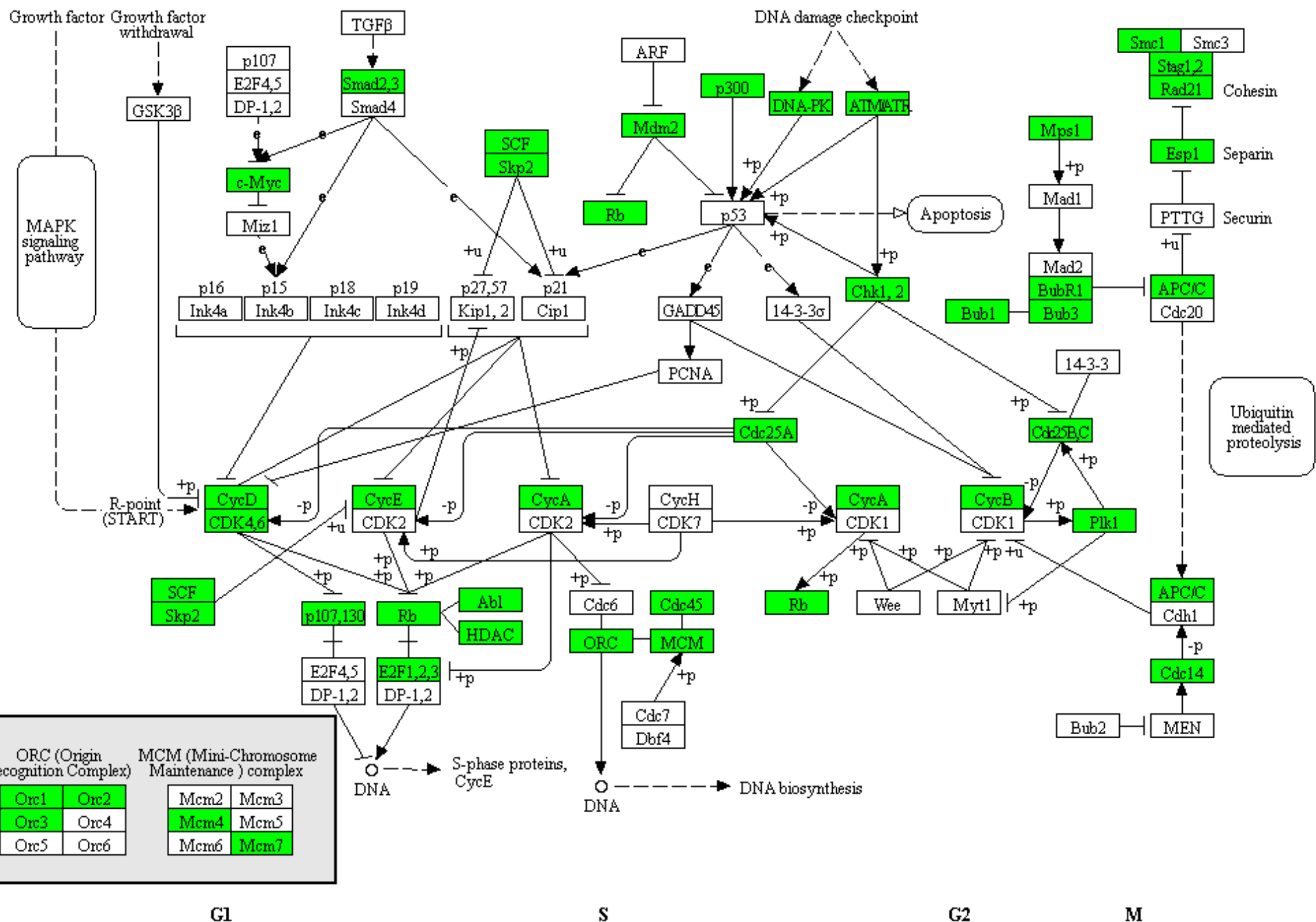
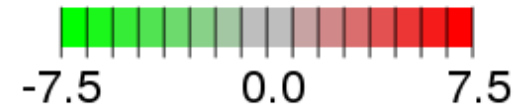
NF-KAPPA B SIGNALING PATHWAY



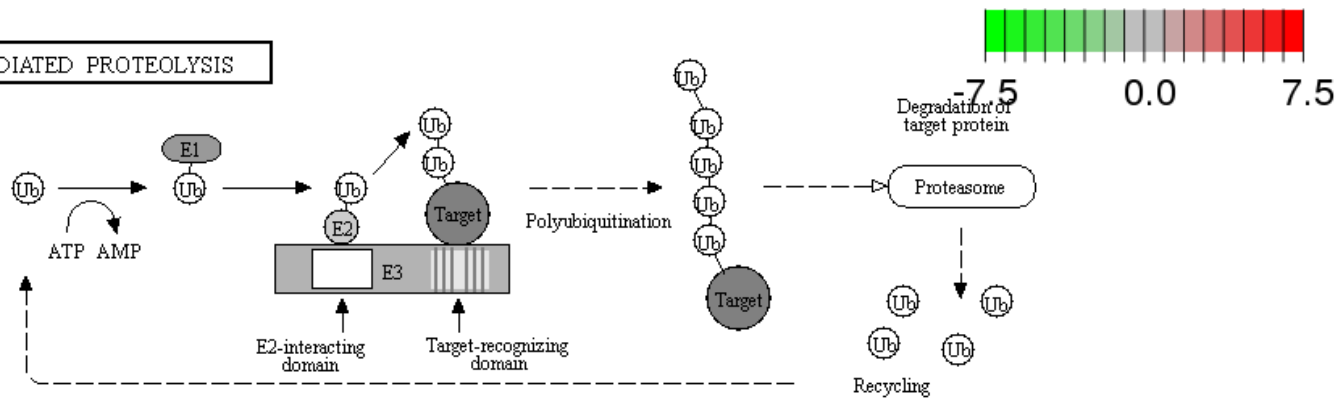
PHOSPHATIDYLINOSITOL SIGNALING SYSTEM



CELL CYCLE



UBIQUITIN MEDIATED PROTEOLYSIS



E1
(Ubiquitin-activating enzyme)

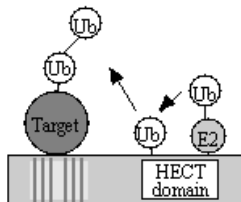
UBE1 UBE1A UBE1B UBE1C

E2
(Ubiquitin-conjugating enzyme)

UBE2A UBE2B UBE2C UBE2D UBE2E UBE2F UBE2G1 UBE2G2 UBE2H
 UBE2I UBE2J1 UBE2J2 UBE2L3 UBE2L6 UBE2M UBE2N UBE2O
 UBE2Q UBE2R UBE2S UBE2U UBE2W UBE2Z HIP2 AFCL1CN

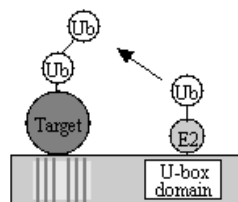
E3
(Ubiquitin ligase)

HECT type E3



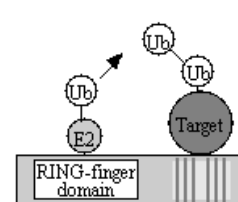
E6AP UBE3B UBE3C Smurf Itch
 WWP1 WWP2 TRIP12 NEDD4 ARF-BP1
 EDD1 HERC1 HERC2 HERC3 HERC4

U-box type E3



UBE4A UBE4B CHIP
 CYC4 PRP19 UIP5

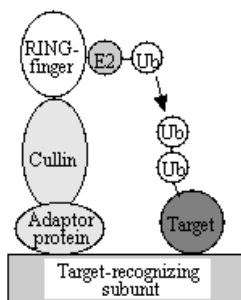
single RING-finger type E3



Mdm2 CBL Parkin SHAH-1 PML TRAP6 MEKK1
 COP1 PIRH2 cIAPs PIAS SYVN NHLRC1 AIRE
 MGRN1 BRCA1 FANCL MID1 Trim32 Trm37

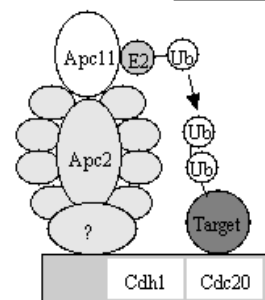
multi subunit RING-finger type E3

Cullin-Rbx E3

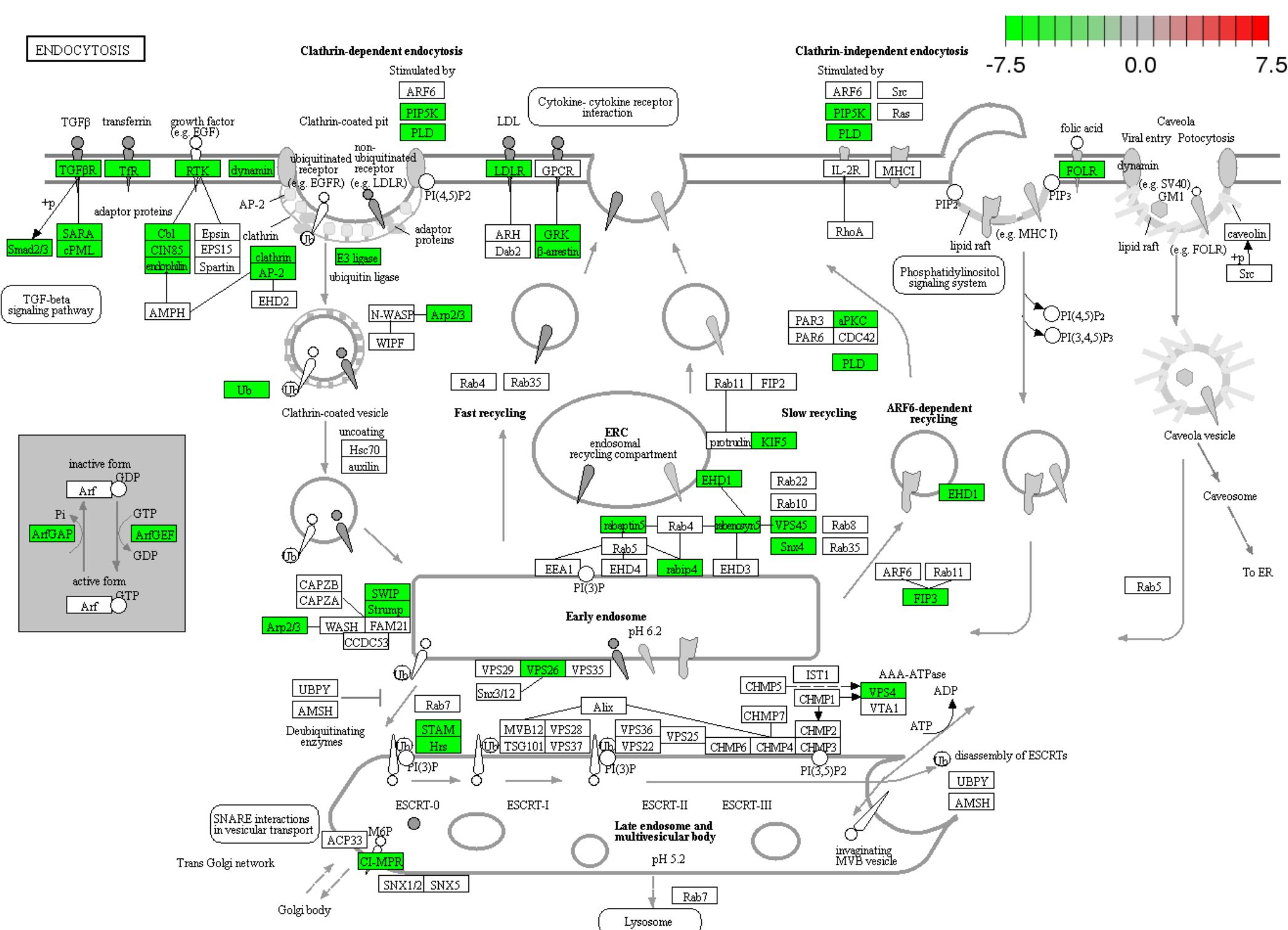


	RING finger	Cullin	Adaptor protein	Target recognizing subunit
SCF complex	RBX1	Cul1	Skp1	F-box
ECV complex	RBX1	Cul2	EloB EloC	VHLbox
Cul3 complex	RBX1	Cul3	BTB	
Cul4 complex	RBX1	Cul4	DDB1	DCAF
ECS complex	RBX2	Cul5	EloB EloC	SOC3box
Cul7 complex	RBX1	Cul7	Skp1	Fbxw8

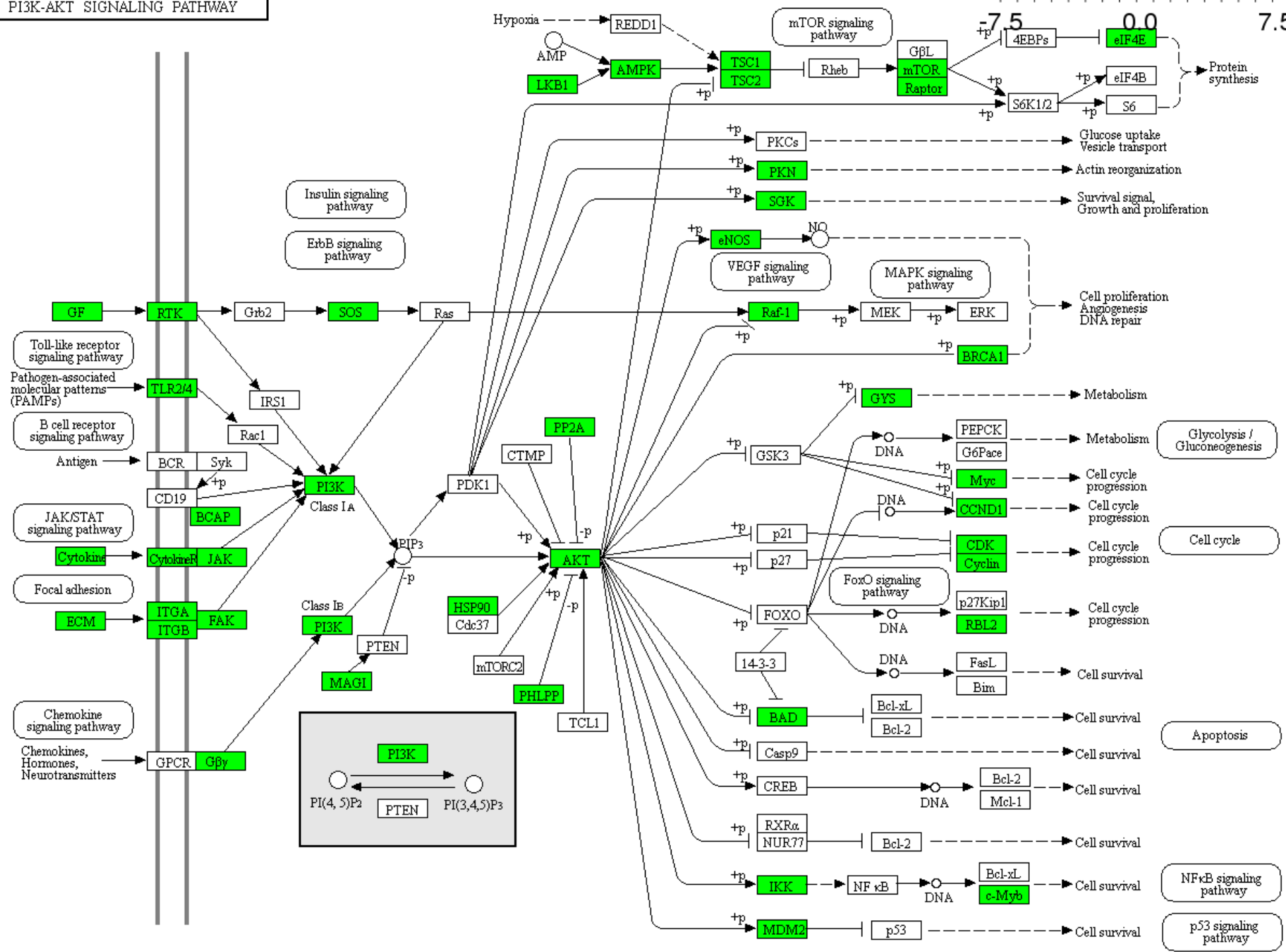
APC/C



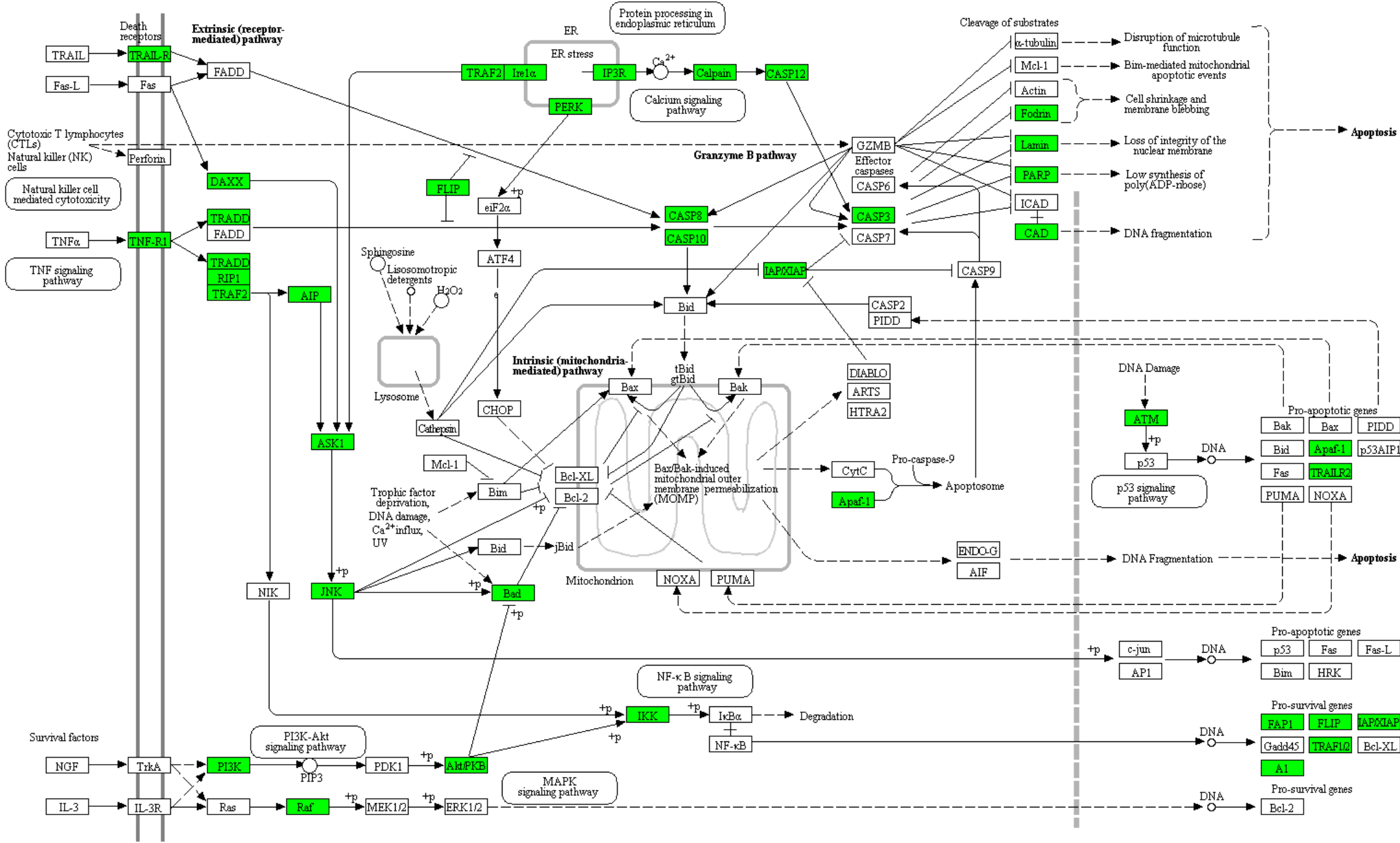
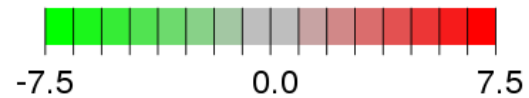
RING finger	Cullin	Adaptor protein	Target recognizing subunit	Other subunits
Apc11	Apc2	?	Cdc20	Apc1 Apc3 Cdh1 Apc4 Apc5 Apc6 Apc7 Apc8 Apc9 Apc10 Apc12 Apc13

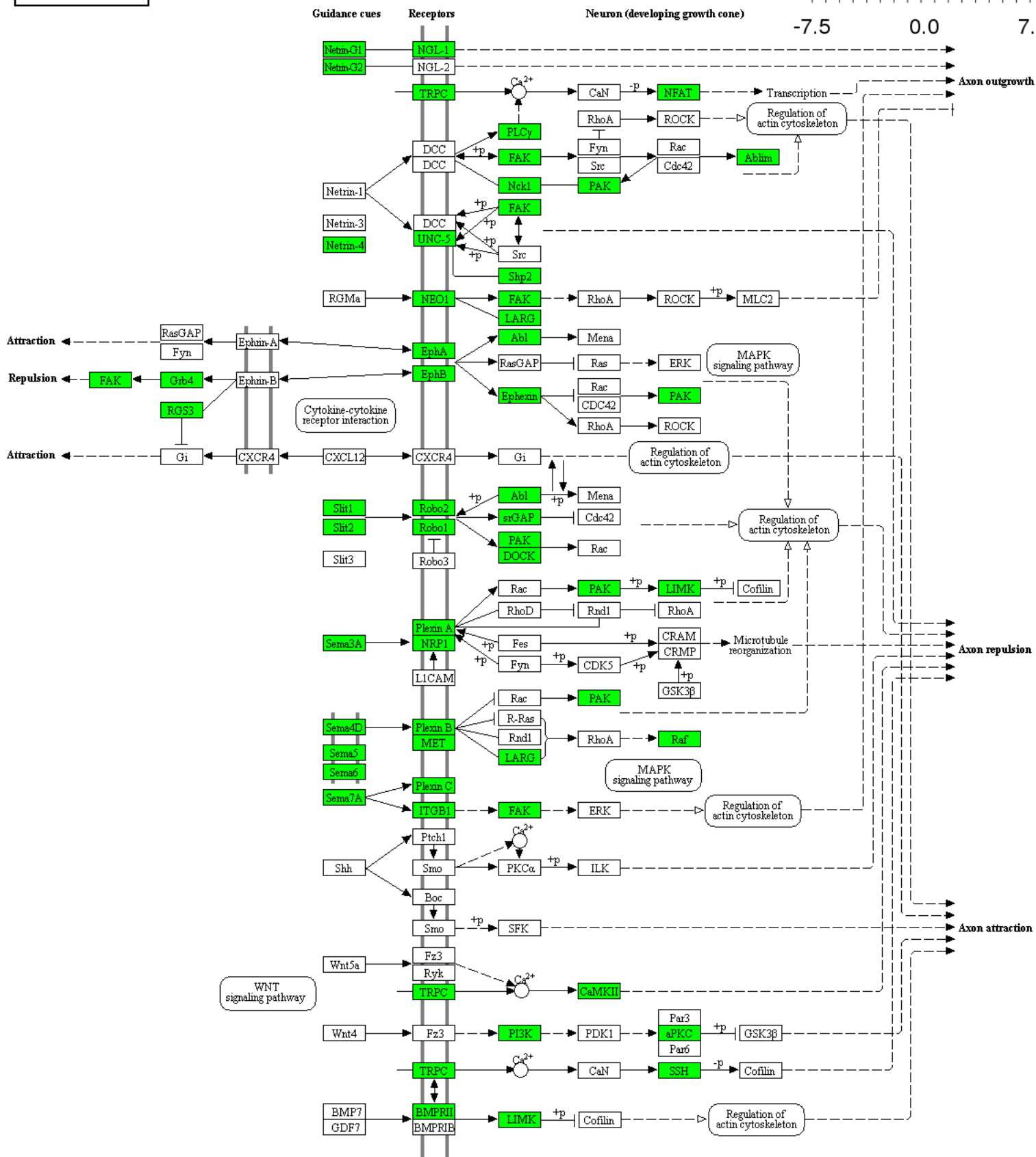


PI3K-AKT SIGNALING PATHWAY

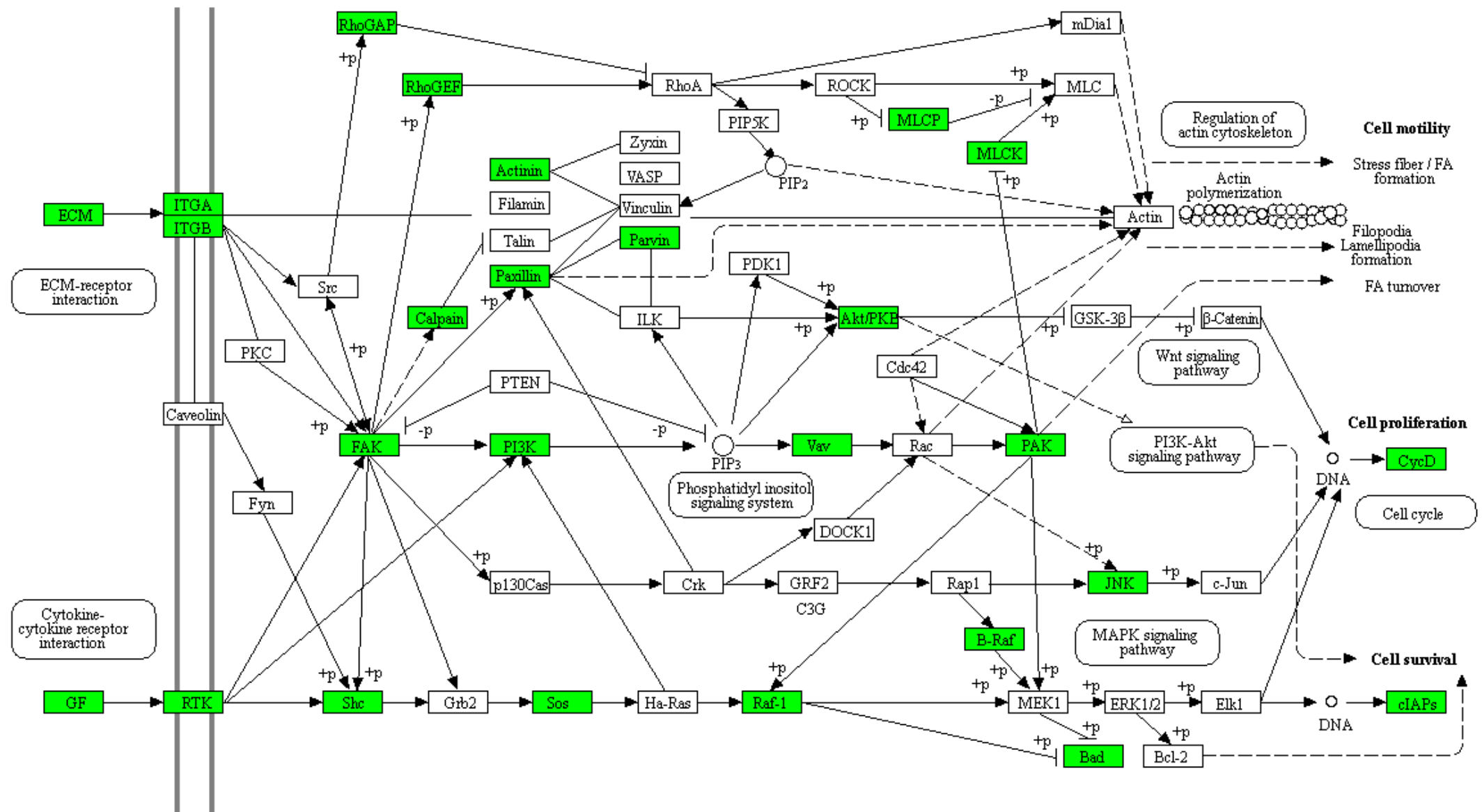
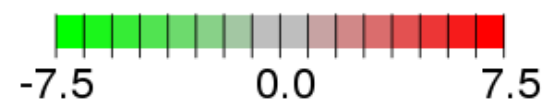


APOPTOSIS

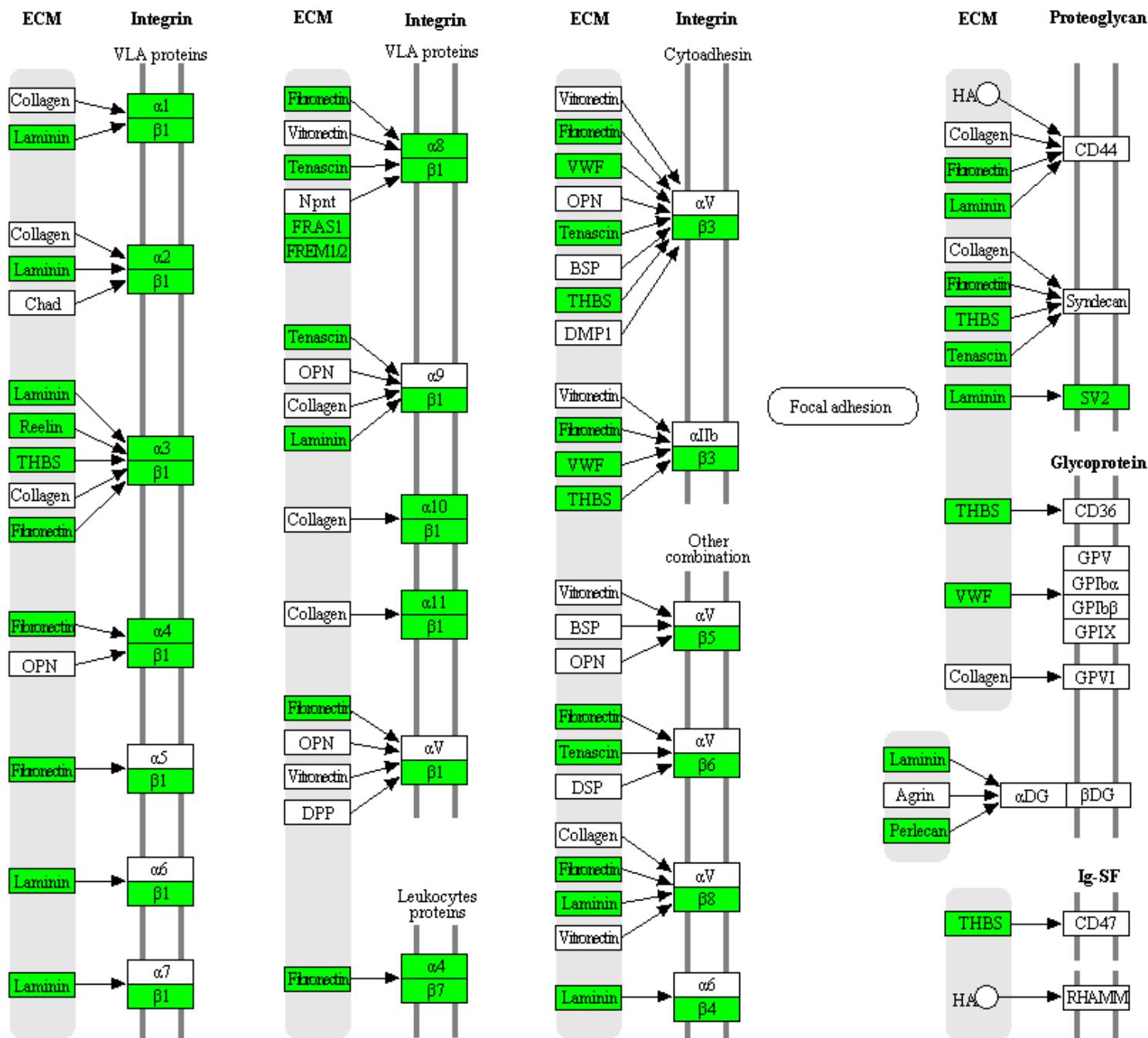
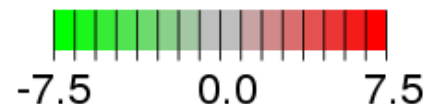




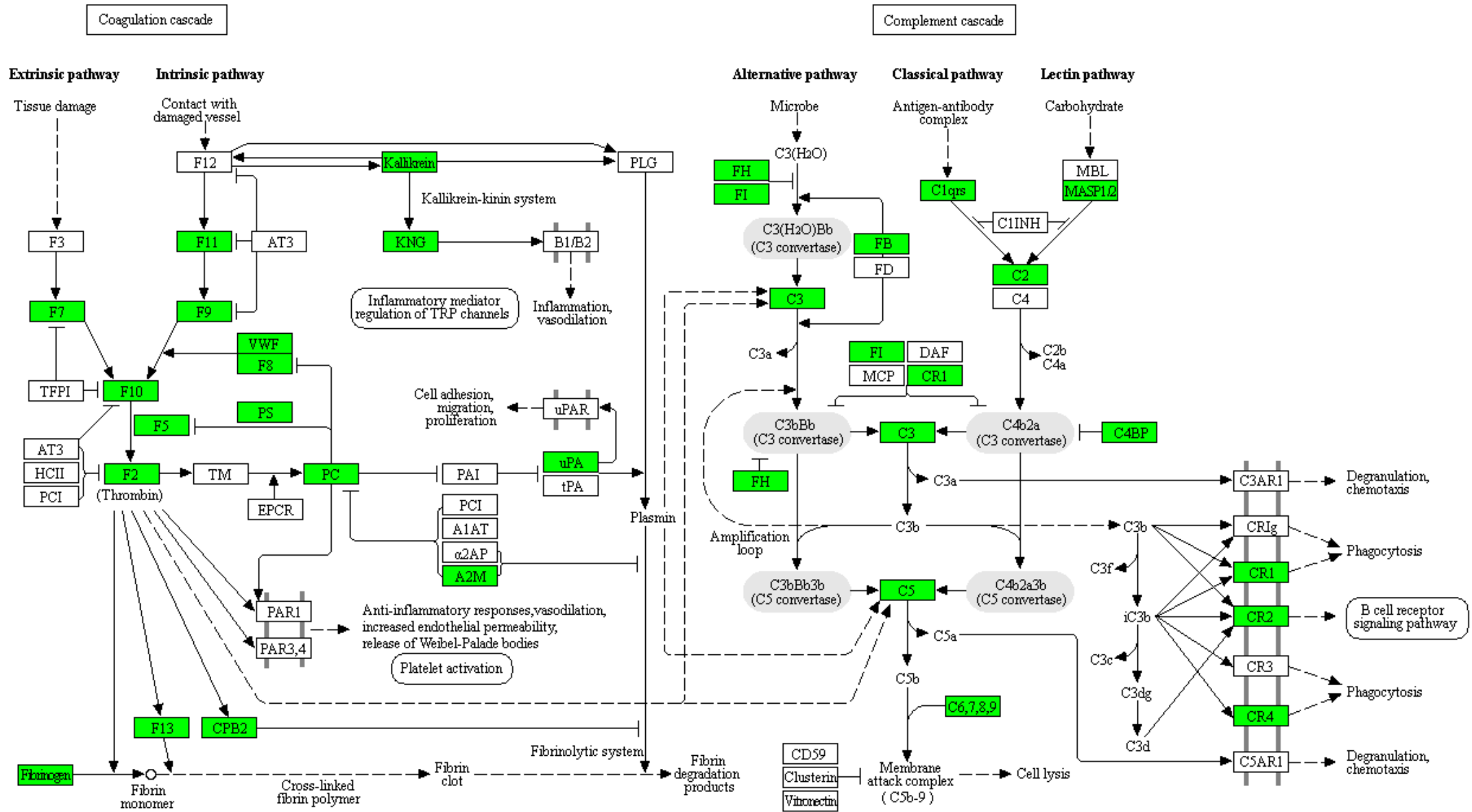
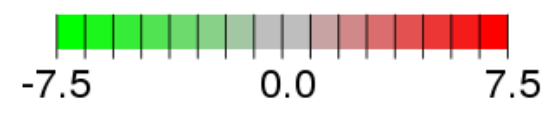
FOCAL ADHESION



ECM-RECEPTOR INTERACTION

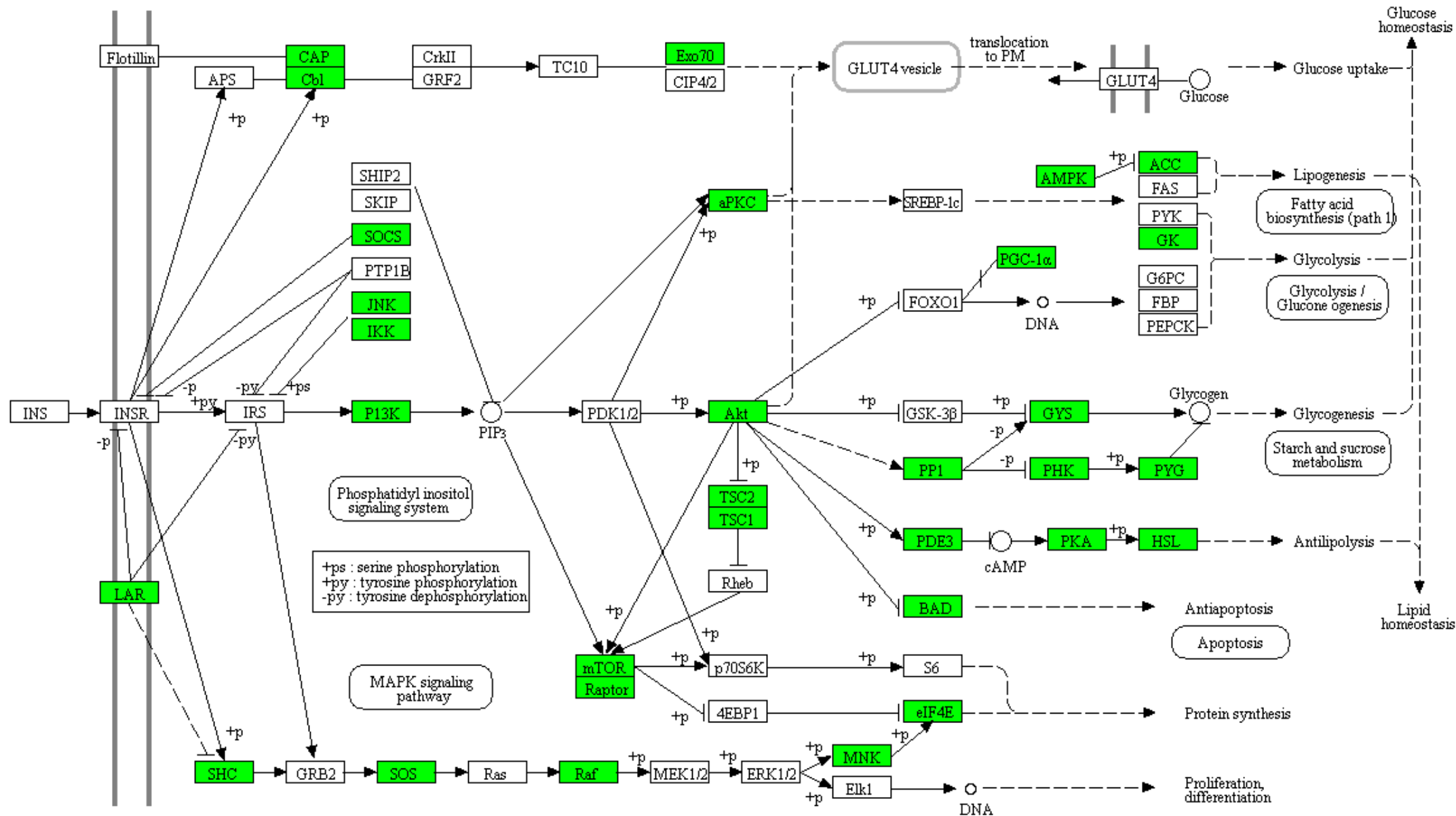
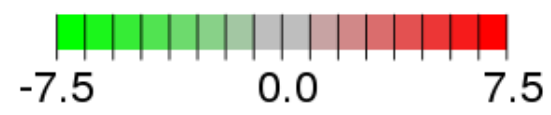


COMPLEMENT AND COAGULATION CASCADES

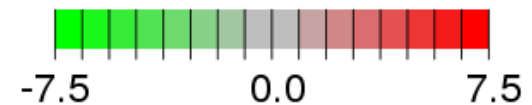


Data on KEGG graph
Rendered by Pathview

INSULIN SIGNALING PATHWAY



PANCREATIC CANCER



Chromosome Unstable (CIN) pathway

Normal duct

PanIN-1A (Pancreatic intraepithelial neoplasia)

PanIN-1B

PanIN-2

PanIN-3

Adenocarcinoma

Pancreatic ductal cell

