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TSC2 -STK11 -TSC1 -

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	Difference in CCF Distribution																	
	ESig3 ^{HI} ESig4 ^{HI}																	
	All	BLCA	BRCA	OADREA	GBM	HNSC	KIRC	KIRP	LIHC	LUAD	LUSC	OV	PAAD	PRAD	SKCM	STAD	UCEC	
AF3 2L11 SP8			1 1		1 1	1 1				1 1		1 1	1 1					Apoptosis
N1B DK4 TG2 N1A	1 100	1 1	1 1	1 1	1 1	1 1	1 1	1 1			1 1	1 1	1 1	1 1	1 1 1 1 1 1			Cell cycle

	ESig3 ^{HI} ESig4 ^{HI}																	
	All	BLCA	BRCA	OADREA	GBM	HNSC	KIRC	KIRP	LIHC	LUAD	LUSC	OV	PAAD	PRAD	SKCM	STAD	UCEC	
TRAF3 - 3CL2L11 - CASP8 -		1 1			1 1		1 1	1 1		1 1	1 1	1 1		1 1		1 1		Apoptosis
CDKN1B - CDK4 - BTG2 - CDKN1A - CCND1 - CDK12 - RB1 - CDKN2A -			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									111111111111111111111111111111111111111		Cell cycle
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Epigenetics DNA modifiers

Genome integrity

Histone modification

Immune signaling

MAPK signaling

Metabolism

NFKB signaling

NOTCH signaling

Other

Other signaling

PI3K signaling

Protein homeostasis/ubiquitination

RNA abundance

RTK signaling

Splicing

TGFB signaling

TOR signaling

Transcription factor

Wnt/B-catenin signaling

NA

All	BLCA	BRCA	OADREA	GBM	HNSC	KIRC	KIRP	LIHC	LUAD	LUSC	OV	PAAD	PRAD	SKCM	STAD	UCEC	
TRAF3 BCL2L11 CASP8	1 1				1 1	1 1		1 1									Apoptosis
CDKN1B CDK4 BTG2 CDKN1A CCND1 CDK12 RB1 CDKN2A																	Cell cycle
MEN1 SIN3A KDM5C WHSC1 ZMYM3 KANSL1 EP300 ARID5B NCOR1 CREBBP CREBBP NSD1 KMT2A KMT2A KMT2B KMT2C KMT2D																	Chromatin histone modifiers

	All	BLCA	BRCA	OADREA	GBM	HNSC	KIRC	KIRP	LIHC	LUAD	LUSC	OV	PAAD	PRAD	SKCM	STAD	UCEC	
TRAF3 - BCL2L11 - CASP8 -		1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		1 1	1 1	1 1	1 1		Apoptosis
CDKN1B - CDK4 -				1 1			1 1	1 1	1 1				1 1	1 1				
BTG2 - CDKN1A - CCND1 -		++-		++-			++-			++-	++-		++-	++-	++-	++-		Cell cycle
CDKN1B - CDK4 - BTG2 - CDKN1A - CCND1 - CDK12 - RB1 - CDKN2A -			1 1	1	1		1 1	1 1	1 1			1 1	1 1	1 1		1	1 000	
MEN1-		· ·		· ·	1 1		· ·			1 1	· ·			· ·	· ·	1 1		