

	KPNB1_INHIBITED BY CD4_DOWNREGULATES JUN_ACTIVATES RANB5_UBIQUITINATED BY NFKB1_INHIBITS CASP3_ASSOCIATES WITH TP53_INTERACTS WITH IPO7_IMPORTED BY 									
Nef	-I	I	I	-I	I	X	X	0	0	0
Tat	-I	I	I	0	0	0	0	-I	I	0
Rev	0	I	I	-I	I	X	0	-I	I	0
Integrase	0	I	I	0	0	0	0	0	0	0
env_gp160	-I	0	I	-I	I	X	X	0	0	X
Vpu	0	0	0	0	I	X	X	0	0	X
Matrix	-I	I	I	0	I	0	0	0	0	0
•										
•	0	0	I	-I	0	0	0	0	0	0
•										

(a)

	KPNB1_INHIBITED BY RANB5_UBIQUITINATED BY TP53_INTERACTS WITH CASP3_ASSOCIATES WITH IPO7_IMPORTED BY 							
Nef	-I	-I	X	X	0	0	X	0
Tat	-I	0	0	0	-I	0	X	-I
Rev	0	-I	0	X	-I	0	X	0
Integrase	0	0	0	0	0	-I	X	0
env_gp160	-I	-I	X	X	0	-I	X	
Vpu	0	0	X	X	0	-I	X	0
Matrix	-I	0	0	0	0	0	0	0
	0	-I	0	0	0	0	0	0

HV_negative

(b)

	CD4_DOWNREGULATES JUN_ACTIVATES TP53_INTERACTS WITH NFKB1_INHIBITS CASP3_ASSOCIATES WITH 							
Nef	I	I	X	I	X	I	X	0
Tat	I	I	0	0	0	I	X	I
Rev	I	I	0	I	X	I	X	0
Integrase	I	I	0	0	0	0	0	0
env_gp160	0	I	X	I	X	0	0	I
Vpu	0	0	X	I	X	I	0	0
Matrix	I	I	0	I		I	X	0
•	0	I	0	0		0	0	0

HV_positive

(c)

-I	-I	X	X
-I	-I	X	X

-I	-I
-I	-I

-I	X
-I	X
-I	X

.....

I	I
I	I
I	I

I	X	I	X
I	X	I	X

X	I
X	I

.....

Biclusters

(d)

Biclusters

(e)

GO-
Enrichment
Test and
Pathway
Analysis

Association
Rule
Mining

New
Interaction
Prediction

(f)