

Supplementary Table 3: Median $\pm$ MAD of inferred edge weights  $w_{ij}$  using the LP model on the ErbB signaling data where  $i$  corresponds to genes of the  $i$ th row and  $j$  to genes of the  $j$ th column. If the MAD is not given explicitly, it is equal to zero.

	CDK2	CDK4	CDK6	Cyclin D1	Cyclin E1	ERalpha	ERBB1	ERBB2	ERBB3	IGF1R	MYC	p27	pAKT1	pERK1/2	pRBI	
CDK2	0	0	0	0	0	0	0	0	0	0	0	-0.14 $\pm$ 0.21	0	0.25 $\pm$ 0.37	0	0.33 $\pm$ 0.27
CDK4	0	0	0	0	0	0.4 $\pm$ 0.05	0	0.69	0	0	0	0	0	0	0	0.44 $\pm$ 0.18
CDK6	0	0	0	0	0	0.95	0	0	0	0	0	0	0	0	0	0
Cyclin D1	-0.36 $\pm$ 0.05	0	0	0	0	0	0	0	0	0	0	0.39 $\pm$ 0.02	0.59 $\pm$ 0.32	0.16 $\pm$ 0.06	0.18 $\pm$ 0.03	0.01 $\pm$ 0.02
Cyclin E1	0	0	0	0	0	0	0	0	0	0.95	0	0	0	0	0	0
ERalpha	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ERBB1	0	0	0	0	0	0	0	0.21	0	0	0	-0.2 $\pm$ 0.07	0.36	0.03 $\pm$ 0.05	0	-0.04 $\pm$ 0.06
ERBB2	1 $\pm$ 0.07	0.21 $\pm$ 0.05	0	0	0	0	0.42 $\pm$ 0.06	0	0	0	0	0	0	0	0	-0.02 $\pm$ 0.03
ERBB3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IGF1R	0	0	0	0	0.95	0	0	0	0	0	0	0	0	0	0	0
MYC	0	0	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0
p21	-1.07 $\pm$ 0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	1.62 $\pm$ 0.03	0
p27	0	0.25	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0
pAKT1	0	0	0	0.26	0	0	0	0	0	0	0	0	-0.2 $\pm$ 0.3	0	0	0.31 $\pm$ 0.15
pERK1.2	0 $\pm$ 0.01	0	0	0	0	-0.02 $\pm$ 0.02	0	0	0	0	0	0.72 $\pm$ 0.14	0	0	0	0
pRBI	0.45 $\pm$ 0.11	0.67 $\pm$ 0.05	0	0.05	0	0.06	0	0	0	0	0.06 $\pm$ 0.08	0.35 $\pm$ 0.19	-0.6 $\pm$ 0.06	0	0	0