

Identification of a Topological Characteristic Responsible for the Biological Robustness of Regulatory Networks

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Table S1: The cell-cycle control network of the budding yeast

(Based on Ref. [1])

Cln3 $\xrightarrow{-}$ Cln3	Cln3 $\xrightarrow{+}$ MBF
Cln3 $\xrightarrow{+}$ SBF	MBF $\xrightarrow{+}$ Clb5,6
SBF $\xrightarrow{+}$ Cln1,2	Clb5,6 $\xrightarrow{-}$ Cdh1
Clb5,6 $\xrightarrow{-}$ Sic1	Clb5,6 $\xrightarrow{+}$ Clb1,2
Clb5,6 $\xrightarrow{+}$ Mcm1	Cln1,2 $\xrightarrow{-}$ Cln1,2
Cln1,2 $\xrightarrow{-}$ Cdh1	Cln1,2 $\xrightarrow{-}$ Sic1
Cdh1 $\xrightarrow{-}$ Clb1,2	Sic1 $\xrightarrow{-}$ Clb5,6
Sic1 $\xrightarrow{-}$ Clb1,2	Clb1,2 $\xrightarrow{-}$ MBF
Clb1,2 $\xrightarrow{-}$ SBF	Clb1,2 $\xrightarrow{-}$ Cdh1
Clb1,2 $\xrightarrow{-}$ Sic1	Clb1,2 $\xrightarrow{-}$ Swi5
Clb1,2 $\xrightarrow{+}$ Cdc20	Clb1,2 $\xrightarrow{+}$ Mcm1
Swi5 $\xrightarrow{+}$ Sic1	Swi5 $\xrightarrow{-}$ Swi5
Cdc20 $\xrightarrow{-}$ Clb5,6	Cdc20 $\xrightarrow{+}$ Cdh1
Cdc20 $\xrightarrow{+}$ Sic1	Cdc20 $\xrightarrow{-}$ Clb1,2
Cdc20 $\xrightarrow{+}$ Swi5	Cdc20 $\xrightarrow{-}$ Cdc20
Mcm1 $\xrightarrow{+}$ Clb1,2	Mcm1 $\xrightarrow{+}$ Swi5
Mcm1 $\xrightarrow{+}$ Cdc20	Mcm1 $\xrightarrow{-}$ Mcm1

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1. Li F, Long T, Lu Y, Ouyang Q, Tang C (2004) The yeast cell-cycle network is robustly designed. Proc Natl Acad Sci U S A 101:4781–4786.