

Additional file 10

Logical rules for activation of each of the 34 nodes in the Boolean model.

Node	Logical rule	References
Glucose	Input node	Bowden <i>et al.</i> 2009
Iron	Input node	Teixido <i>et al.</i> 2011, Kortman <i>et al.</i> 2012
Magnesium	Input node	Miao and Miller 2000
Calcium	Input node	Linehan <i>et al.</i> 2005
Osmolarity	Input node	Lee <i>et al.</i> 2000, Linehan <i>et al.</i> 2005
Stationary phase	Input node	Ibarra <i>et al.</i> 2010
Mlc	NOT Glucose	Lim <i>et al.</i> 2007
HilE	NOT Mlc	Lim <i>et al.</i> 2007
HilD	SirA-BarA OR HilD OR HilC OR RtsA OR Fur AND (NOT CsrA) AND (NOT HilE)	Baxter <i>et al.</i> 2003, Lawhon <i>et al.</i> 2003, Ellermeier <i>et al.</i> 2005, Ellermeier <i>et al.</i> 2008, Mizusaki <i>et al.</i> 2008, Ganesh <i>et al.</i> 2009, Saini <i>et al.</i> 2010, Teixido <i>et al.</i> 2011
HilC	HilD OR HilC OR RtsA	Ellermeier <i>et al.</i> 2005, Saini <i>et al.</i> 2010
RtsA	HilD OR HilC OR RtsA	Ellermeier <i>et al.</i> 2005, Saini <i>et al.</i> 2010
HilA	HilD AND (HilC OR RtsA) AND (NOT PhoP) AND ((NOT H-NS) OR (H-NS AND IHF) OR SirA)	Boddicker <i>et al.</i> 2003, Schechter <i>et al.</i> 2003, Ellermeier <i>et al.</i> 2005, Aguirre <i>et al.</i> 2006, Saini <i>et al.</i> 2010, Queiroz <i>et al.</i> 2011
IHF	Osmolarity AND Stationary phase	Queiroz <i>et al.</i> 2011
SirA-BarA	Osmolarity AND (NOT Glucose)	Teplitski <i>et al.</i> 2003, Lim <i>et al.</i> 2007, Mizusaki <i>et al.</i> 2008
CsrBC	SirA-BirA	Teplitski <i>et al.</i> 2003, Fortune <i>et al.</i> 2006
CsrA	NOT CsrBC	Fortune <i>et al.</i> 2006
Fur	Iron	Teixido <i>et al.</i> 2011, Troxell <i>et al.</i> 2011
H-NS	NOT (PhoP AND Fur AND SlyA AND HilD AND IHF)	Bustamante <i>et al.</i> 2008, Perez <i>et al.</i> 2008, Troxell <i>et al.</i> 2011
PhoP	NOT Magnesium	Bijlsma <i>et al.</i> 2005
SlyA	(NOT Osmolarity) AND (NOT Calcium)	Linehan <i>et al.</i> 2005
SsrAB	OmpR AND (((NOT H-NS) AND (HilD OR SlyA OR PhoP)) OR (H-NS AND (HilD OR (PhoP AND SlyA))))	Lee <i>et al.</i> 2000, Bijlsma <i>et al.</i> 2005, Linehan <i>et al.</i> 2005, Bustamante <i>et al.</i> 2008, Martinez <i>et al.</i> 2011

Fis	Stationary phase	Ibarra <i>et al.</i> 2010
EnvZ	Osmolarity	Lee <i>et al.</i> 2000
OmpR	NOT EnvZ	Feng <i>et al.</i> 2003
YfhA	NOT EnvZ	Yamamoto <i>et al.</i> 2005
MviA	H-NS AND (NOT PhoP)	Garcia-Calderon <i>et al.</i> 2009
RcsB	YfhA AND (NOT MviA)	David Ghosh 2000, Garcia-Calderon <i>et al.</i> 2009
PmrA	PhoP	Soncini and Groisman 1996
SciS	(RcsB AND PmrA) OR (RcsB AND PmrA AND YfhA) AND (NOT SsrAB)	David Ghosh 2000, Parsons and Heffron 2005, Wang <i>et al.</i> 2011, Leung <i>et al.</i> 2011
VrgS	PmrA	Wang <i>et al.</i> 2011
SciG	RcsB AND PmrA	Wang <i>et al.</i> 2011
SPI-1	HilA	Ellermeier <i>et al.</i> 2005
SPI-2	SsrAB AND (SlyA or Fis)	Cirillo <i>et al.</i> 1998, Linehan <i>et al.</i> 2005, Lim <i>et al.</i> 2006
TSSS	SciS AND SciG AND VrgS	Wang <i>et al.</i> 2011

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