Species	Description	Initial Value	Units
G	Unbound GAIT complex	0.0	RU
P	GAIT target protein	0.0	RU
M	Unbound GAIT target mRNA	0.0	RU
F	Unbound GAIT element interacting factor (GEIF)	0.0 or 1.0	RU
GM	GAIT complex bound mRNA	0.0	RU
FM	GAIT element interacting factor bound mRNA	0.0	RU
I	Inhibitor of GAIT complex	0.0 or [0.08, 800]	RU
GI	GAIT complex bound inhibitor	0.0	RU
M_w	mRNA pool lacking GAIT element	0.0	RU

Table S1: Summary of initial conditions for model species in simulations; RU = relative units, Related to Figure 2

Parameter	Description	Value	Units
t	Time after initial bolus of $IFN\gamma$	0-24	hr
$IFN\gamma_0$	Initial bolus of $IFN\gamma$	0 to 500	Units/ml
K_M	Bolus of $IFN\gamma_0$ corresponding to half maximal, steady state value of target mRNA	200	Units/ml
M_{max}	Maximal, steady state value of total GAIT element-bearing mRNA for a 500 units/ml dose of $IFN\gamma_0$ (experimental measurement)	8	RU
α_M	Coefficient related to total mRNA (as measured from RT-PCR experiments, estimated by non-linear regression using equation (16))	11.4	–
k_{IFN}	Rate constant associated with the transcriptional surge in target mRNA induced by $IFN\gamma$ (estimated by non-linear regression using equation (15))	0.08	hr^{-1}
k_{GM}	Forward reaction rate constant for binding of GAIT complex and target mRNA (experimental measurement)	0.75	(RU. hr)$^{-1}$
$K_{D_{GM}}$	Dissociation rate constant for binding of GAIT complex and target mRNA (experimental measurement)	10.6	RU
k_{FM}	Forward reaction rate constant for binding of GEIF and target mRNA (assumed to be same as k_{GM})	0.75	(RU. hr)$^{-1}$
k_{GI}	Forward reaction rate constant for binding of GAIT complex and inhibitor (assumed equal to k_{GM})	0.75	(RU. hr)$^{-1}$
$K_{D_{FM}}$	Dissociation rate constant for binding of GEIF and target mRNA (estimated by non-linear regression)	0.2	RU
$K_{D_{GI}}$	Dissociation rate constant for binding of GAIT complex and inhibitor (range of values assumed)	[0.1,1000]	RU
k_P	Rate constant for translation of mRNA to protein (Alon, 2007)	2	hr^{-1}
α_P	Coefficient related to rate of protein synthesis (as measured via densitometry after Western Blot, estimated by non-linear regression using enhanced or initial model)	5	–
G_{ss}	Steady-state value of total GAIT complex (David et al., 2011 and unpublished data)	100 X M_{max}	RU
F_0	Initial value of GEIF (estimated by non-linear regression)	1	RU
R_{M/M_w}	Ratio of total GAIT element-bearing mRNA to the mRNA pool devoid of GAIT element	[100,2]	–

Table S2: Summary of model parameters; RU = relative units, Related to Figure 2