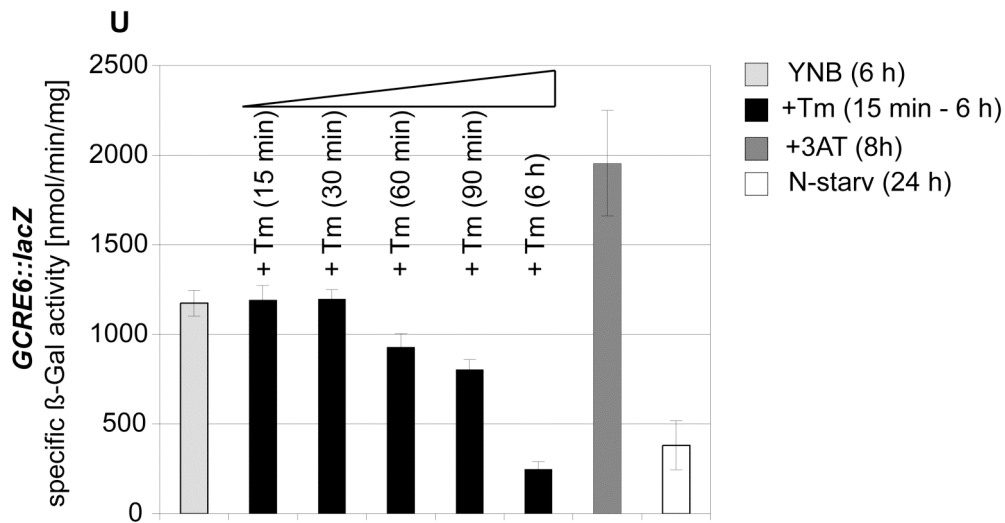


1 **Supplementary Figure 1**

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6 **Supplementary Figure 1. Kinetics of *GCRE6::lacZ* repression after tunicamycin-mediated ER stress.**

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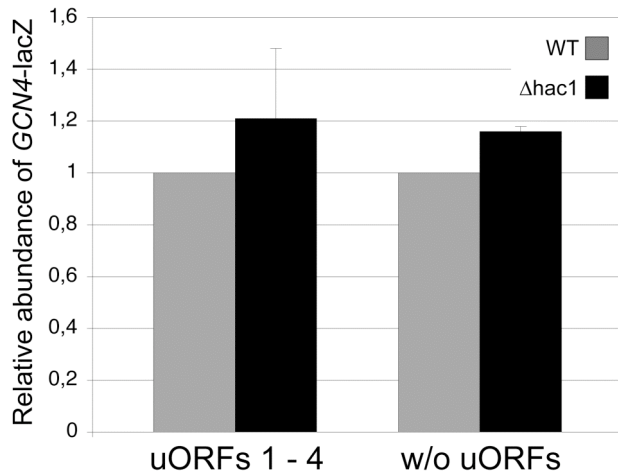
8 Expression of the *GCRE6::lacZ* reporter gene was determined in the haploid Σ 1278b
 9 wild type strain RH3409 under non-starvation (YNB, light gray bar) in comparison to
 10 different starvation or stress conditions. Amino acid (3AT, dark gray bar) and nitrogen
 11 starvation (N-starv, white bar) were induced as described in Figure 2B. For ER stress
 12 conditions cells were incubated either in the presence of 1 μ g/ml Tm for 6 h (Tm,
 13 black bar) or cells were initially grown for 6 h under non-stress conditions before
 14 incubating for indicated time points with 1 μ g/ml Tm (black bars; Tm induction for 15,
 15 30, 60 and 90 min). Specific β -galactosidase were analyzed as described in Figure
 16 2B.

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18 **Supplementary Figure 2**

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Supplementary Figure 2. GCN4-lacZ expression is independent of Hac1.

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Relative *GCN4-lacZ* levels of haploid wild type strain (RH2816) as well haploid *HAC1* deletion strain (RH3351) expressing the *GCN4-lacZ* fusion gene either with (p180) or without (p227) all four uORFs were determined after growth for 6h in YNB. Bars depict means of at least three independent measurements of β -galactosidase activities.

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30 **Supplementary Table 1**

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β -Galactosidase assays of individual 400 bp *FLO11* promoter elements cloned into the UAS of a *CYC1::lacZ* reporter construct.

	Wild type (<i>Mata/α</i>) Units (nmol/min/mg)		Δ <i>hac1/Δhac1</i> Units (nmol/min/mg)		Δ <i>gcn4/Δgcn4</i> Units (nmol/min/mg)	
	YNB	+3AT	YNB	+3AT	YNB	+3AT
<i>FLO11</i>	27	227	27	75	12	28
No insert	19	39	22	50	8	17
2/1	36	61	40	82	15	30
3/2	107	121	123	138	33	69
4/3	61	78	46	106	12	25
5/4	36	60	35	64	8	23
6/5	674	1530	336	768	120	176
7/6	806	920	323	254	108	158
8/7	58	69	34	50	9	15
9/8	70	92	60	121	21	44
10/9	100	333	69	211	27	72
11/10	287	255	822	537	172	463
12/11	92	99	95	94	23	55
13/12	33	64	31	59	11	28
14/13	33	64	29	81	12	30
15/14	28	68	35	101	11	34

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33 The diploid wild type strain (RH2656) as well as diploid Δ *hac1/Δhac1* (RH3412) and
 34 Δ *gcn4/Δgcn4* (RH2658) mutant strains were transformed with indicated *CYC1::lacZ*
 35 reporter constructs (53) and expression was assayed under non-starvation conditions
 36 (YNB) compared to amino acid starvation induced by adding 10 mM 3AT (3AT). The
 37 received β -galactosidase units (nmol/min/mg) are given for each sequence element
 38 in each strain and represent mean values of at least three independent
 39 measurements.

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