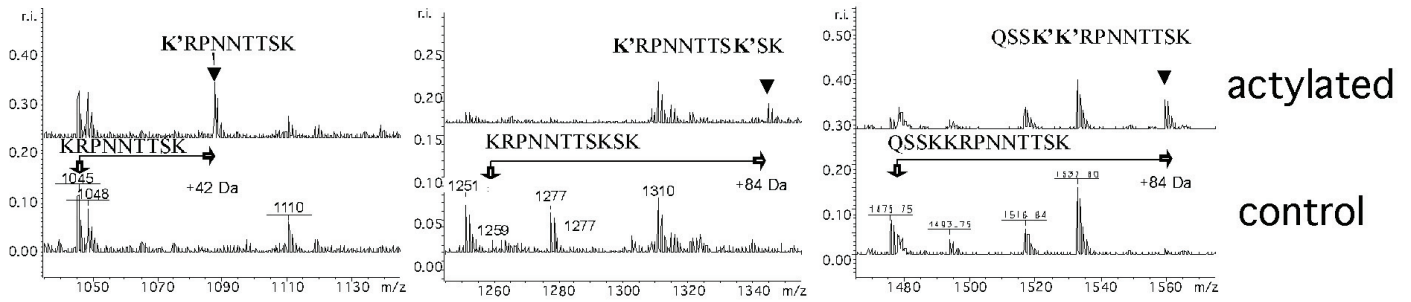
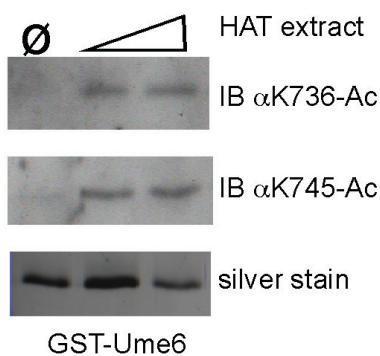
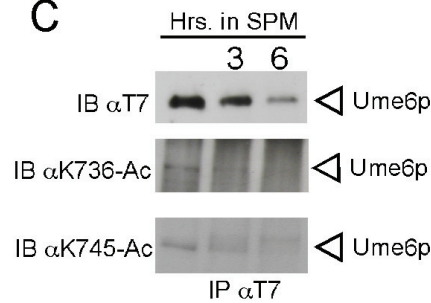


**A****B****C**

**Supplemental Figure 1.** Identification of in vitro Ume6p acetylation sites. **(A)** Reactions as described in Figure 1A were examined by a Bruker Reflex IV MALDI-TOF mass spectrometer following separation by a Waters 2690 HPLC system. Three representative spectra from acetylated and control samples are depicted. The corresponding peptide sequences with (K') and without (K) acetylation are indicated. **(B)** An in vitro acetylated Gst-Ume6 reaction with increasing amount of extract (2 or 4  $\mu$ l) as described in Materials and methods was split into thirds and separated by PAGE. The gels were blotted and probed with either the  $\alpha$ K736-Ac or  $\alpha$ K745-Ac antibodies. No HAT extract control ( $\emptyset$ ) was also included. **(C)** Wild type strain expressing T7-Ume6p was grown to mid-log phase in acetate medium (0 hr) then transferred to sporulation medium (SPM) for 3 or 6 hrs. Extracts prepared from these samples were immunoprecipitated with T7 Mab and the immunoprecipitates blotted and probed with either the T7 Mab,  $\alpha$ K736-Ac or  $\alpha$ K745-Ac.

Strain <sup>a</sup>	Genotype <sup>b</sup>	Source
RSY10	<i>MATa ade2 ade6 can1-100 his3-11,15 leu2-3,112 trp1-1 ura3-1</i>	(Strich <i>et al.</i> , 1989)
RSY335*	<i>MATa/MATα</i>	(Cooper <i>et al.</i> , 1997)
RSY1079*	<i>MATa/MATα T7-UME6</i>	(Mallory <i>et al.</i> , 2007)
RSY622*	<i>MATa gcn5::TRP1</i>	This study
RSY1634*	<i>MATa/MATα gcn5::TRP1 T7-UME6<sup>KALLQ</sup></i>	This study
RSY1091*	<i>MATa/MATα gcn5::TRP1 T7-UME6</i>	This study
RSY1101*	<i>MATa/MATα cdc20-1 T7-UME6</i>	(Mallory <i>et al.</i> , 2007)
RSY1622*	<i>MATa/MATα rpd3::TRP1 UME6<sup>KALLR</sup></i>	This study
RSY1623*	<i>MATa/MATα cdc20-1 UME6<sup>KALLQ</sup></i>	This study
RSY1226*	<i>MATa/MATα UME6<sup>KALLQ</sup></i>	This study
RSY1149*	<i>MATa/MATα UME6<sup>KALLR</sup></i>	This study
RSY1148*	<i>MATa/MATα UME6<sup>K745R</sup></i>	This study
RSY1147*	<i>MATa/MATα UME6<sup>K736,737R</sup></i>	This study
RSY1632*	<i>MATa/MATα rpd3::TRP1 T7-UME6</i>	This study
RSY1636*	<i>MATa/MATα rpd3::TRP1 UME6<sup>KALLR</sup></i>	This study
RSY1125*	<i>MATa/MATα UME6<sup>K745Q</sup></i>	This study
RSY1062*	<i>MATa/MATα ume6::LEU2</i>	This study
RSY1500	<i>MATa/MATα ADA2-TAP:his3::LEU2</i>	This study

**Supplemental Table 1. Yeast strains used in this study.** <sup>a</sup>Asterisk denotes strains also harboring *cyh2<sup>r</sup>-z ho::LYS2 leu2::hisG lys2 trp1::hisG ura3* alleles. <sup>b</sup>All alleles listed are homozygous unless indicated otherwise.

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Name	Sequence (5'-3')
K736R	TCAAAGGCGAAACAGTCATCACGTAAAAGACCAAATAATACTACT
K737R	AAGGCGAAACAGTCATCAAAGAGAAGACCAAATAATACTACTTCG
K736R, K737R	TCAAAGGCGAAACAGTCATCACGTAAAAGACCAAATAATACTACT
K745R	AGACCAAATAATACTACTTCGCGATCAAAGCAAACAATTCTCAA
KALLR	TCAAAGGCGAAACAGTCATCAAGAAGAAGACCAAATAATACTACTT CGAGATCAAAGCAAACAATTCTCAA
KALLQ	TCAAAGGCGAAACAGTCATCACAACAAAGACCAAATAATACTACTT CGCAATCAAAGCAAACAATTCTCAA
<i>SPO13</i> qPCR	AAGCCCACATCCAGGATTAATT, CGAACATCTCCAGCCTTTGAG
<i>UME6</i> qPCR	CGGCAGTCCATCTAACGACTCT, CACGCCACGGCACAT
<i>ENO1</i> qPCR	GCCGCTGCTGAAAAGAATGT, TGGAGAGGTCTTGGACTTAGACAA

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**Supplemental Table 2.** Oligonucleotides used for site directed mutagenesis and qPCR as indicated.