

Figure S1 Ploidy affects hundreds of ethanol-responsive transcripts. The number of linkages falling within a sliding 5 cM window is plotted across the genome. The large hotspot on chromosome II coincides with the *HO* locus.

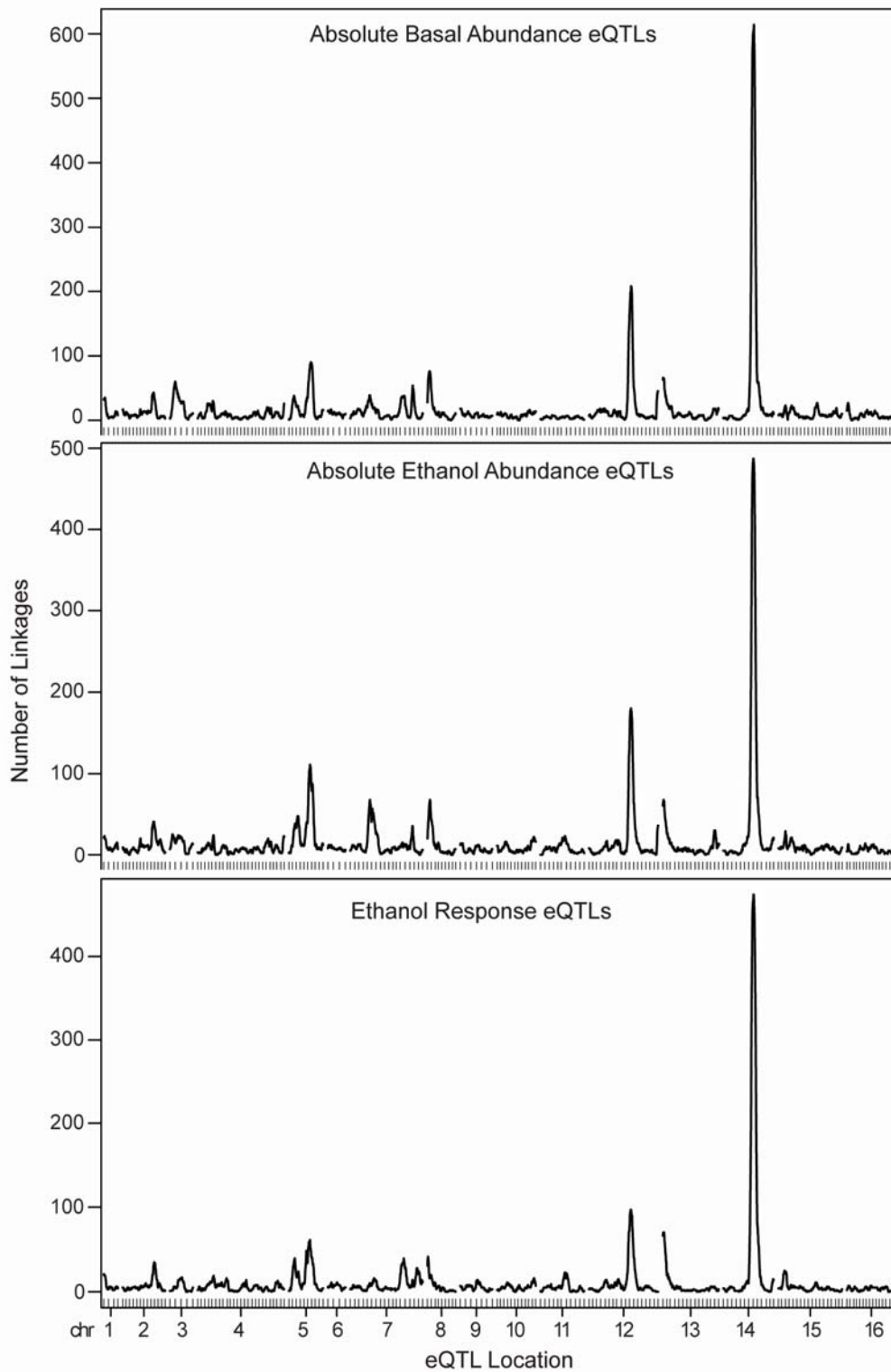


Figure S2 Hotspot linkage association for the combined crosses across mapping regimes. The average number of transcripts (using a sliding 5cM window) mapping to each locus across the sixteen yeast chromosomes (x-axis) is plotted for each of the three mapping regimes.

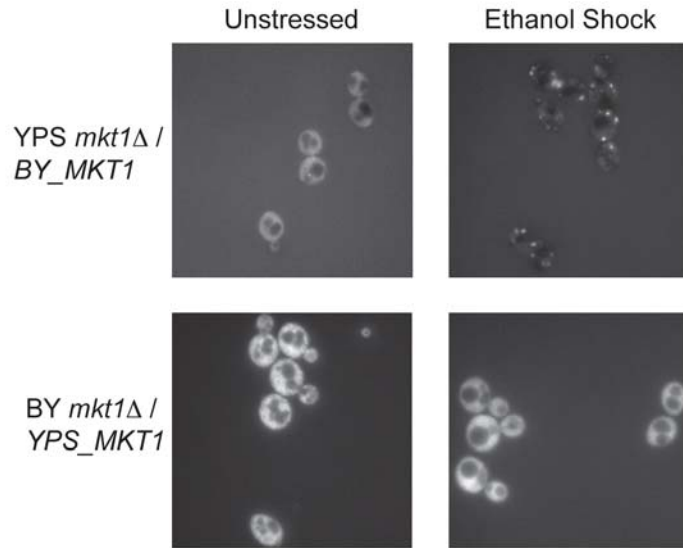


Figure S3 Reciprocal Hemizyosity analysis of Mkt1p-GFP localization. Localization of Mkt1p-GFP was observed via fluorescent microscopy before and after 30 min treatment with 5% ethanol.

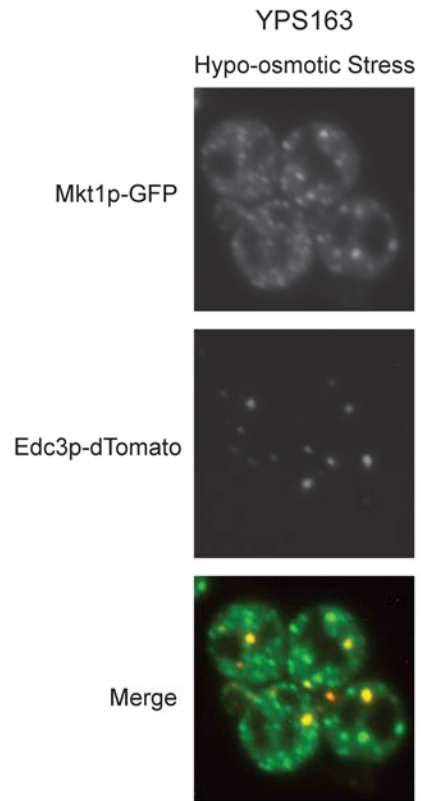


Figure S4 YPS_Mkt1p-GFP co-localizes to P-bodies during hypo-osmotic stress. Localization of Mkt1p-GFP and Edc3p-dTomato was observed via fluorescence microscopy following resuspension of cells in water for 30 min.

Files S1-S10

Available for download as Excel files at <http://www.genetics.org/lookup/suppl/doi:10.1534/genetics.114.167429/-/DC1>

- File S1** Strains Used in this Study
- File S2** Normalized Microarray Data for Basal Transcript Abundance
- File S3** Normalized Microarray Data for Ethanol Transcript Abundance
- File S4** Normalized Microarray Data for Ethanol Response
- File S5** Limma Output for Analysis of Parental Microarray Data
- File S6** List of All Significant Linkages
- File S7** Functional Enrichments for Parental Gene Expression Clusters
- File S8** eQTL Hotspot Coordinates and Enrichments
- File S9** Epi-Hotspot Coordinates and Enrichments
- File S10** Regulator Enrichments for MKT1 Hotspot Traits

Table S1 eQTL mapping summary for S288c x M22 cross

	Total Transcripts Mapped	Number (and %) mapping to 1 locus	Number (and %) mapping to 2 loci	Number (and %) mapping to 3 or more loci
Basal Abundance Mapping	1480	1370 (93%)	100 (7%)	10 (1%)
Ethanol Abundance Mapping	1349	1230 (91%)	111 (8%)	8 (1%)
Ethanol Response Mapping	1127	1048 (93%)	76 (7%)	3 (0%)
One or more mapping regime	2664			

Table S2 eQTL mapping summary for S288c x YPS163 cross

	Total Transcripts Mapped	Number (and %) mapping to 1 locus	Number (and %) mapping to 2 loci	Number (and %) mapping to 3 or more loci
Basal Abundance Mapping	2314	1928 (83%)	313 (14%)	73 (3%)
Ethanol Abundance Mapping	2260	1875 (83%)	321 (14%)	64 (3%)
Ethanol Response Mapping	1631	1432 (88%)	188 (12%)	11 (1%)
One or more mapping regime	3764			