Supplementary Table S1. Confirmed HU-sensitive gene-deletion strains

YAL021c YCL016c YDR004w YDR076w YDR369c YDR386w YER095w YJR043c YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR234w YMR198w	CCR4 DCC1 RAD57 RAD55 XRS2 MUS81 RAD51 POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3 MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	screens <sup>‡</sup> 4  4  4  4  4  4  4  4  4  4  4  4  3  3	Transcription/mRNA catabolism Sister chromatid cohesion DNA recombination DNA recombination Double-strand break repair DNA repair DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA recombination DNA replication DNA replication DNA replication DNA replication DNA replication DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YDR004w YDR076w YDR369c YDR386w YER095w YJR043c YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR032w YLR034x	RAD57 RAD55 XRS2 MUS81 RAD51 POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 4 4 4 4 4 3 3 3 3 3 3 3 3	Sister chromatid cohesion DNA recombination DNA recombination Double-strand break repair DNA repair DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA recombination DNA replication DNA replication DNA replication DNA replication RNA pol II transcription Unknown DNA repair BNA repair Bud site selection RNA processing
YDR076w YDR369c YDR386w YER095w YJR043c YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR032w YLR234w	RAD55 XRS2 MUS81 RAD51 POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 4 4 4 4 3 3 3 3 3 3 3 3	DNA recombination Double-strand break repair DNA repair DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA replication DNA replication DNA replication RNA pol II transcription Unknown DNA repair BNA repair Bud site selection RNA processing
YDR369c YDR386w YER095w YJR043c YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR032w	XRS2 MUS81 RAD51 POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 4 4 4 3 3 3 3 3 3 3 3 3	Double-strand break repair DNA repair DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA replication DNA replication DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YDR386w YER095w YJR043c YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR032w	MUS81 RAD51 POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 4 4 4 3 3 3 3 3 3 3 3 3	DNA repair DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YER095w	RAD51 POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 4 4 3 3 3 3 3 3 3 3 3	DNA repair DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YJR043c YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR034w	POL32 TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 4 3 3 3 3 3 3 3 3 3	DNA repair DNA replication DNA recombination Double-strand break repair DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YLR235c YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR234w	TOP3 3' MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 4 3 3 3 3 3 3 3 3 3	DNA replication DNA recombination Double-strand break repair DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YLR320w YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR034v	MMS22 RAD52 SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 3 3 3 3 3 3 3 3 3	DNA recombination Double-strand break repair DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YML032c YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR234w	RAD52 SGS1 RAD50 CTF4 ROX3 MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 4 3 3 3 3 3 3 3 3 3 3	DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YMR190c YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR234w	SGS1 RAD50 CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 4 3 3 3 3 3 3 3 3 3	DNA recombination DNA replication Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YNL250w YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR041c YHR154w YIL128w YJR090c YLR032w YLR0324w	RAD50 CTF4 ROX3 MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 4 3 3 3 3 3 3 3 3 3	Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YPR135w YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR041c YHR154w YIL128w YJR090c YLR032w YLR032w YLR234w	CTF4 ROX3  MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	4 3 3 3 3 3 3 3 3	Double-strand break repair DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YBL093c YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR034w	ROX3  MMS4*  MMS4-B*  RVS161  PAT1  PTC1  RAD59  DUN1	3 3 3 3 3 3 3	DNA replication RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YBR094w YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR041c YHR154w YIL128w YJR090c YLR032w YLR034w	MMS4* MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	3 3 3 3 3 3	RNA pol II transcription Unknown DNA repair DNA repair Bud site selection RNA processing
YBR098w YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR034w	MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	3 3 3 3 3	Unknown DNA repair DNA repair Bud site selection RNA processing
YBR100w YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR034w	MMS4-B* RVS161 PAT1 PTC1 RAD59 DUN1	3 3 3 3	DNA repair Bud site selection RNA processing
YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR034w	RVS161 PAT1 PTC1 RAD59 DUN1	3 3 3 3	DNA repair Bud site selection RNA processing
YCR009c YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	RVS161 PAT1 PTC1 RAD59 DUN1	3 3 3	Bud site selection RNA processing
YCR077c YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	PATI PTC1 RAD59 DUNI	3 3	RNA processing
YDL006w YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	RAD59 DUN1	3	
YDL059c YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	RAD59 DUN1		Protein dephosphorylation
YDL101c YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	DUN1		Double-strand break repair
YDR264c YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w		3	Cell cycle checkpoint
YDR364c YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	AKR 1	3	Mating pathway
YGL163c YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	CDC40	3	mRNA splicing
YHR041c YHR154w YIL128w YJR090c YLR032w YLR234w	RAD54	3	Chromatin remodelling
YHR154w YIL128w YJR090c YLR032w YLR234w	SRB2	3	RNA pol II transcription
YIL128w YJR090c YLR032w YLR234w	ESC4/RTT107	3	Double-strand break repair
YJR090c YLR032w YLR234w	MET18	3	RNA pol II transcription
YLR032w YLR234w	GRR1	3	Cell cycle transition
YLR234w	RAD5	3	DNA repair
	TOP3	3	DNA recombination
11/11(1)0//	CIK1	3	Mitotic spindle orientation
YMR224c	MRE11	3	Double-strand break repair
YNR052c	CAF1/POP2	3	Transcription/mRNA catabolism
YPR141c	KAR3	3	Mitotic spindle orientation
YGR104c	SRB5	2	Transcription
YGR180c	RNR4	2	DNA replication
YJR104c	SOD1	2	Oxidative stress metabolism
YNL171c	3001	2	Unknown
YOR290c	SNF2	2	Chromatin remodelling
YPL031c	PHO85	2	Cell cycle/cyclin-dependent
11 LU3 IC	111003	2	kinase
YPL254w	HFI1	2	Chromatin modification
	пгп	2 2	Unknown
YPR099c			
YDR140w	DMD !	1	Unknown
YER070w	RNR I	1	DNA replication
YGL024w		1	Unknown
YKL126w YOR080w	YPK1	1	Protein kinase DNA replication

‡Overlap with genome-wide screens detailed in Results; \*YBR098w and YBR100w are merged ORFs.