

**Table S6.** Genes where their corresponding reactions were localized to the mitochondria after running *predictLocalization* (transport cost=0.1). The color indicates whether the gene product is mitochondrial in SGD, where green means that it does, yellow that it is unclear, and red that it does not.

In common	Comments	Only in automatically reconstructed	Comments	Only in iIN800	Comments
YAR035W		YBL098W		YBR029C	
YBL013W		YBR003W		YCR024C	
YBR026C		YCL064C		YDL182W	
YBR084W		YDL168W		YDR236C	
YBR263W		YDR538W		YER073W	
YCL004W		YGR094W		YGL125W	
YDL066W		YHL032C		YGR012W	
YDL142C		YHR091C		YJL200C	
YDL174C		YHR190W		YKL085W	
YDR019C		YIL066C		YLR304C	
YDR232W		YKL067W		YMR062C	
YDR234W		YKL182W		YMR207C	
YDR268W		YLR100W		YOR040W	
YER014W		YLR305C		YOR374W	
YER061C		YML042W		YPL188W	
YER069W		YMR293C		YEL041W	unknown
YER086W		YOL059W		YLR209C	intracellular
YER087W		YOR241W		YPL023C	unknown
YER170W		YPL091W		YER026C	
YER178W		YPR006C		YFL022C	
YFL018C		YPR033C		YFR047C	
YGR171C		YPR113W		YGL037C	
YGR244C		YHR128W	intracellular	YHR074W	
YGR255C		YKR069W	intracellular	YJR049C	
YHR037W		YOL064C	unknown	YKL216W	
YHR106W		YBR020W		YLR060W	
YHR208W		YBR205W		YLR328W	
YIL094C		YBR218C		YOL097C	
YIL125W		YBR252W		YOR209C	
YIL155C		YCR053W		YOR236W	
YJR016C		YDL021W		YBR029C	
YKL029C		YDL022W			
YKL106W		YDR047W			
YKL141W		YDR297W			
YKL194C		YDR454C			
YLR089C		YER070W			
YLR142W		YFL001W			
YLR355C		YGL001C			
YLR382C		YGL012W			
YML054C		YGR060W			
YML110C		YGR087C			
YMR083W		YGR175C			
YMR108W		YHR063C			
YMR189W		YIL145C			
YNL037C		YJL068C			
YNL071W		YJR078W			
YNL073W		YKL001C			
YNL104C		YKL008C			
YNL169C		YKR009C			
YNR001C		YLR027C			
YOL033W		YLR058C			
YOL096C		YLR303W			
YOL140W		YMR015C			

YOR142W  
YOR176W  
YPL040C  
YPL097W  
YPL104W  
YPL262W  
YPR001W  
YPR047W

YMR113W  
YMR250W

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