

Table S1: 735 ORFs over-represented in the sorted fraction

YAL003w	YBR085w	YCL056c	YDL130w-a	YDR134c	YDR438w	YER049w
YAL012w	YBR086c	YCL058c	YDL134c	YDR137w	YDR463w	YER050c
YAL022c	YBR104w	YCL069w	YDL136w	YDR153c	YDR465c	YER061c
YAL024c	YBR106w	YCR002c	YDL154w	YDR156w	YDR479c	YER063w
YAL025c	YBR107c	YCR008w	YDL156w	YDR161w	YDR480w	YER074w
YAL026c	YBR121c	YCR012w	YDL157c	YDR169c	YDR481c	YER080w
YAL029c	YBR135w	YCR051w	YDL169c	YDR197w	YDR482c	YER089c
YAL053w	YBR138c	YCR075c	YDL191w	YDR205w	YDR516c	YER095w
YAL061w	YBR143c	YCR088w	YDL194w	YDR222w	YDR518w	YER103w
YAL065c	YBR145w	YCR091w	YDL199c	YDR235w	YDR519w	YER114c
YAL068c	YBR146w	YCR100c	YDL212w	YDR238c	YDR523c	YER120w
YAR003w	YBR148w	YCR101c	YDL214c	YDR242w	YDR527w	YER123w
YBL004w	YBR150c	YCR102c	YDL224c	YDR249c	YDR534c	YER124c
YBL006c	YBR153w	YCR105w	YDL233w	YDR292c	YEL013w	YER137c
YBL035c	YBR162w-a	YCR107w	YDL240w	YDR302w	YEL017w	YER145c
YBL056w	YBR165w	YDL005c	YDR004w	YDR311w	YEL019c	YER147c
YBL078c	YBR166c	YDL024c	YDR028c	YDR314c	YEL031w	YER161c
YBL079w	YBR168w	YDL028c	YDR030c	YDR329c	YEL042w	YER171w
YBL082c	YBR171w	YDL031w	YDR037w	YDR330w	YEL047c	YER176w
YBL084c	YBR175w	YDL033c	YDR072c	YDR334w	YEL051w	YER178w
YBL087c	YBR181c	YDL044c	YDR089w	YDR350c	YEL058w	YER179w
YBL091c-a	YBR191w	YDL046w	YDR093w	YDR365c	YEL071w	YER187w
YBR001c	YBR262c	YDL049c	YDR098c	YDR371w	YER002w	YFL004w
YBR002c	YBR268w	YDL056w	YDR104c	YDR373w	YER003c	YFL026w
YBR012c	YBR276c	YDL060w	YDR110w	YDR380w	YER014w	YFL030w
YBR030w	YBR289w	YDL067c	YDR121w	YDR395w	YER022w	YFL041w
YBR063c	YCL001w	YDL088c	YDR123c	YDR397c	YER025w	YFL052w
YBR067c	YCL004w	YDL100c	YDR125c	YDR404c	YER028c	YFR003c
YBR074w	YCL010c	YDL116w	YDR129c	YDR419w	YER041w	YFR007w
YBR076w	YCL035c	YDL119c	YDR130c	YDR420w	YER044c	YFR009w
YBR077c	YCL055w	YDL121c	YDR132c	YDR429c	YER048c	YFR017c

YFR042w
YFR047c
YFR051c
YGL009c
YGL014w
YGL025c
YGL030w
YGL086w
YGL107c
YGL115w
YGL135w
YGL147c
YGL148w
YGL153w
YGL167c
YGL169w
YGL173c
YGL181w
YGL209w
YGL211w
YGL216w
YGL221c
YGL222c
YGL236c
YGL247w
YGL259w
YGR004w
YGR007w
YGR008c
YGR012w
YGR028w
YGR031w
YGR036c

YGR038w
YGR043c
YGR044c
YGR049w
YGR055w
YGR083c
YGR092w
YGR109c
YGR122w
YGR124w
YGR168c
YGR171c
YGR179c
YGR193c
YGR195w
YGR200c
YGR201c
YGR205w
YGR207c
YGR216c
YGR220c
YGR222w
YGR227w
YGR239c
YGR243w
YGR244c
YGR245c
YGR251w
YGR252w
YGR258c
YGR260w
YGR262c
YGR284c

YGR285c
YGR287c
YHL023c
YHL041w
YHL046c
YHR003c
YHR005c
YHR008c
YHR010w
YHR015w
YHR024c
YHR025w
YHR033w
YHR041c
YHR049w
YHR064c
YHR075c
YHR088w
YHR092c
YHR101c
YHR111w
YHR113w
YHR120w
YHR121w
YHR126c
YHR131c
YHR132c
YHR140w
YHR148w
YHR170w
YHR196w
YHR209w
YIL006w

YIL010w
YIL014w
YIL017c
YIL018w
YIL022w
YIL023c
YIL029c
YIL052c
YIL054w
YIL059c
YIL070c
YIL072w
YIL073c
YIL078w
YIL085c
YIL088c
YIL091c
YIL108w
YIL111w
YIL116w
YIL120w
YIL132c
YIL135c
YIL164c
YIL171w
YIR009w
YIR010w
YIR011c
YIR015w
YIR016w
YIR027c
YJL001w
YJL007c

YJL011c
YJL014w
YJL023c
YJL033w
YJL038c
YJL042w
YJL050w
YJL058c
YJL059w
YJL066c
YJL073w
YJL074c
YJL079c
YJL080c
YJL094c
YJL123c
YJL127c
YJL140w
YJL158c
YJL173c
YJL199c
YJL213w
YJL214w
YJL216c
YJR001w
YJR014w
YJR022w
YJR034w
YJR059w
YJR063w
YJR078w
YJR108w
YJR113c

YJR119c
YJR121w
YJR122w
YJR135c
YJR150c
YKL015w
YKL029c
YKL031w
YKL045w
YKL052c
YKL061w
YKL071w
YKL080w
YKL094w
YKL097c
YKL100c
YKL102c
YKL110c
YKL113c
YKL117w
YKL127w
YKL130c
YKL133c
YKL140w
YKL151c
YKL160w
YKL162c
YKL173w
YKL193c
YKL194c
YKL201c
YKL208w
YKL210w

YKL222c
YKR005c
YKR007w
YKR009c
YKR019c
YKR029c
YKR041w
YKR042w
YKR046c
YKR048c
YKR051w
YKR054c
YKR055w
YKR069w
YKR072c
YKR076w
YKR084c
YKR086w
YKR090w
YKR092c
YLL012w
YLL013c
YLL016w
YLL031c
YLL041c
YLL043w
YLL045c
YLL056c
YLR008c
YLR009w
YLR022c
YLR032w
YLR054c

YLR081w
YLR088w
YLR107w
YLR111w
YLR112w
YLR122c
YLR135w
YLR149c
YLR164w
YLR172c
YLR177w
YLR186w
YLR187w
YLR191w
YLR197w
YLR201c
YLR203c
YLR211c
YLR219w
YLR236c
YLR239c
YLR240w
YLR243w
YLR250w
YLR253w
YLR263w
YLR267w
YLR308w
YLR311c
YLR312w-a
YLR321c
YLR344w
YLR346c

YLR348c
YLR359w
YLR360w
YLR367w
YLR368w
YLR371w
YLR373c
YLR380w
YLR390w-a
YLR394w
YLR398c
YLR399c
YLR404w
YLR406c
YLR407w
YLR408c
YLR415c
YLR438c-a
YML006c
YML009c
YML058w
YML061c
YML062c
YML075c
YML078w
YML084w
YML087c
YML091c
YML094w
YML113w
YMR004w
YMR020w
YMR028w

YMR029c
YMR037c
YMR047c
YMR057c
YMR077c
YMR102c
YMR117c
YMR122c
YMR123w
YMR128w
YMR129w
YMR140w
YMR145c
YMR148w
YMR153w
YMR159c
YMR170c
YMR171c
YMR173w
YMR175w
YMR178w
YMR189w
YMR192w
YMR194w
YMR199w
YMR203w
YMR206w
YMR211w
YMR220w
YMR232w
YMR237w
YMR238w
YMR241w

YMR244c-a
YMR262w
YMR264w
YMR269w
YMR272c
YMR276w
YMR279c
YMR287c
YMR292w
YMR294w
YMR298w
YMR301c
YMR304w
YMR305c
YMR309c
YMR312w
YNL010w
YNL047c
YNL080c
YNL097c
YNL102w
YNL118c
YNL121c
YNL127w
YNL134c
YNL138w
YNL141w
YNL182c
YNL185c
YNL196c
YNL201c
YNL207w
YNL211c

YNL233w
YNL238w
YNL242w
YNL244c
YNL249c
YNL258c
YNL259c
YNL268w
YNL270c
YNL271c
YNL290w
YNL306w
YNL315c
YNL320w
YNL326c
YNL327w
YNL329c
YNL335w
YNL339c
YNR001c
YNR002c
YNR004w
YNR006w
YNR029c
YNR044w
YNR048w
YNR056c
YNR058w
YNR063w
YOL003c
YOL005c
YOL009c
YOL010w

YOL016c
YOL036w
YOL043c
YOL053w
YOL063c
YOL072w
YOL085c
YOL087c
YOL098c
YOL116w
YOL123w
YOL141w
YOL143c
YOL166c
YOR002w
YOR003w
YOR005c
YOR010c
YOR011w
YOR027w
YOR043w
YOR047c
YOR063w
YOR064c
YOR067c
YOR070c
YOR073w
YOR075w
YOR101w
YOR131c
YOR140w
YOR147w
YOR166c

YOR167c
YOR179c
YOR183w
YOR184w
YOR197w
YOR206w
YOR211c
YOR215c
YOR223w
YOR229w
YOR230w
YOR231w
YOR244w
YOR245c
YOR253w
YOR268c
YOR270c
YOR273c
YOR274w
YOR275c
YOR276w
YOR294w
YOR298c-a
YOR310c
YOR315w
YOR319w
YOR322c
YOR334w
YOR343c
YOR349w
YOR369c
YOR375c
YOR380w

YOR382w	YPL058c	YPL100w	YPL172c	YPL220w	YPR013c	YPR079w
YOR383c	YPL059w	YPL103c	YPL173w	YPL224c	YPR031w	YPR095c
YOR385w	YPL067c	YPL105c	YPL178w	YPL226w	YPR035w	YPR098c
YPL036w	YPL071c	YPL112c	YPL186c	YPL230w	YPR037c	YPR101w
YPL041c	YPL081w	YPL115c	YPL187w	YPL239w	YPR042c	YPR110c
YPL042c	YPL090c	YPL128c	YPL193w	YPL256c	YPR046w	YPR135w
YPL043w	YPL093w	YPL140c	YPL199c	YPL263c	YPR056w	YPR140w
YPL057c	YPL099c	YPL145c	YPL215w	YPR008w	YPR064w	YPR151c

These genes were analysed using MIPS FunCat:

http://mips.helmholtz-muenchen.de/proj/funcatDB/search_main_frame.html

by selecting “Functional Distribution of Gene Lists” and then pasting in the list of ORFs.

The output shows ORFs associated with each of the top level and sub level categories. For example:

FUNCTIONAL CATEGORY	abs SET	rel SET	genes SET	abs GENOME	rel GENOME	rel SET/rel GENOME	P-VALUE
42 BIOGENESIS OF CELLULAR COMPONENTS	124	16.8	YBR146w YDR420w YGL115w YGL216w YHR075c YCL055w YGR220c YJL014w YML091c YOL009c YKR055w YDR371w YJL073w YMR047c YMR192w YNL242w YJL033w YBR002c YMR276w YBR067c YAR003w YCL001w YNL306w YDL116w YDR125c YIL085c YML058w YML009c YPL256c YDL028c YIL072w YKR048c YNL326c YPR140w YBR175w YDL134c YLR054c YOL116w YBR268w YCL010c YHR101c YLR191w YOR244w YGR239c YMR238w YER114c YMR294w YNL329c YCL069w YLR263w YNL315c YCR002c YMR153w YGR216c YKR009c YPL173w YKR019c YNL138w YPL059w YHR132c YKL052c YNL233w YJL042w YBL006c YDR089w YJL158c YNL339c YER095w YER124c YOR211c YCR088w YNL271c YDR129c YLR368w YOR197w YDL194w YGR245c YKR042w YKR076w YDL088c YDR479c YMR129w YOR043w YMR145c YOR064c YLR312w-a YPL112c YEL013w YGR004w YDL240w YER003c YCL004w YER176w YGL247w YGR252w YMR128w YPL140c YFL004w YGR036c YGR195w YNL047c YDR329c YBR076w YLR390w-a YOR147w YBL079w YER050c YJR113c YOR206w YPL115c YDR072c YLR321c YLR380w YML094w YGR008c YJR108w YBR168w YDR004w YAL029c YML061c YLR371w YMR117c YNR001c YNL185c	862	14	1.2	0.013120721
42.01 cell wall	36	4.89	YBR067c YJL042w YOL116w YLR371w YER003c YGR008c YJL033w YBR076w YDL194w YGR216c YBL006c YDR125c YKR019c YMR238w YDR371w YBR002c YKR009c YCL004w YLR380w YLR390w-a YER176w YGR195w YDL240w YJL158c YLR054c YGR036c YDR072c YER124c YDR420w YMR128w YHR101c YHR132c YIL085c YCR002c YPL140c YKR076w	214	3.49	1.401146132	0.021329589
42.02 eukaryotic plasma membrane	1	0.13	YDR089w	6	0.09	1.444444444	0.535957553
42.04	28	3.8	YJR108w YNL271c YMR294w YDL134c YLR371w YOR197w YNL233w YGR245c YCR088w YDR129c YMR276w YKL052c YMR192w	252	4.11	0.924574	1

cytoskeleton/structural proteins			YJL014w YMR117c YNL138w YDL028c YER114c YPL256c YOR043w YPL115c YGL216w YML094w YNL047c YKR055w YJL042w YMR238w YCR002c			209	
42.04.03 actin cytoskeleton	10	1.35	YNL271c YGR245c YMR192w YDL134c YKR055w YNL047c YCR088w YLR371w YDR129c YOR043w	96	1.56	0.865384 615	1
42.04.05 microtubule cytoskeleton	6	0.81	YGL216w YJR108w YMR117c YJL042w YMR276w YDL028c	47	0.76	1.065789 474	0.502738 858
42.05 centrosome	1	0.13	YMR117c	2	0.03	4.333333 333	0.225732 078
42.07 endoplasmic reticulum	2	0.27	YAL029c YCL001w	11	0.17	1.588235 294	0.387638 82
42.10 nucleus	23	3.12	YLR321c YMR047c YLR263w YMR129w YDR004w YCL010c YMR153w YIL072w YOR064c YNL339c YOR244w YER095w YJL073w YBL079w YGL247w YGR252w YKR048c YML061c YAR003w YDL088c YCL055w YBR175w YDL116w	149	2.43	1.283950 617	0.121541 144
42.10.03 organization of chromosome structure	14	1.9	YCL010c YIL072w YER095w YLR321c YBR175w YAR003w YKR048c YLR263w YOR064c YOR244w YNL339c YDR004w YML061c YGR252w	90	1.46	1.301369 863	0.186592 195
42.10.05 nuclear membrane	7	0.95	YBL079w YDL116w YMR153w YMR129w YDL088c YGL247w YMR047c	30	0.48	1.979166 667	0.060290 725
42.16 mitochondrion	24	3.26	YML009c YNL185c YNL315c YML091c YPL059w YBR268w YLR368w YPR140w YML058w YMR145c YHR075c YOR147w YOR211c YGR220c YNL306w YOL009c YCL004w YBR146w YKR042w YLR312w-a YNR001c YER050c YJR113c YPL173w	171	2.78	1.172661 871	0.234918 743
42.19 peroxisome	10	1.35	YDR479c YGL115w YGR239c YPL112c YGR004w YLR191w YNL242w YDR329c YBR168w YNL329c	35	0.57	2.368421 053	0.006477 77
42.25 vacuole or lysosome	4	0.54	YEL013w YNL326c YFL004w YCL069w	44	0.71	0.760563 38	1
42.29 bud / growth tip	5	0.67	YDL134c YLR371w YNL271c YKR048c YPL115c	30	0.48	1.395833 333	0.288361 051