

**Supplemental Table S5:** Pka1-regulated proteins from *C. neoformans* present in the ATCC gene deletion set.

Gene number	Abund. <sup>a</sup>	Pheno. <sup>b</sup>	Small molecule phenotype	
			Sensitivity	Resistance
CNAG_00094	↓	WT	hydrogen peroxide, palmitic acid	thonzonium bromide
CNAG_00136	↓		none	none
CNAG_00162	↓		chromium III, MMS, pentamidine isethionate	climbazole, hydrogen peroxide, mycophenolic acid, NH <sub>4</sub> Cl, rapamycin, sodium molybdate, sodium sulfite
CNAG_00180	↓	WT	none	hydrogen peroxide, sodium molybdate
CNAG_00275*	↓	WT	benomyl, terbinafine	alexidine, brefeldin A, pentamidine isethionate, sodium molybdate
CNAG_00315	↓	WT	taurolidine	none
CNAG_00409	↓		none	none
CNAG_00482	↓		2-aminobenzotriazole, 5-fluorocytosine, allantoin, aluminum sulfate, borate, BPS, chromium III, colistin, crystal violet, hydroxyurea, latrunculin, manganese sulfate, MMS, myclobutanil, mycophenolic acid, myriocin, NaNO <sub>2</sub> , nicotinamide, pH, rapamycin, SDS, sertraline, sodium iodide, sodium molybdate, sodium sulfite, sodium tungstate, terbinafine, tomatine	cyclosporine + FK506, MMS, rapamycin, rapamycin + GdA
CNAG_00520	↓	WT	none	none
CNAG_00573	↓	WT	allantoin, amiodarone, BPS, castanospermine, climbazole, colistin, congo red, cyclosporine, daphnetin, deferoximine, emodin, geldanamycin, manganese sulfate, MMS, myclobutanil, NA8, NiSO <sub>4</sub> , ophiobolin, SDS, sodium selenite, sodium tungstate, staurosporine, tellurite, terbinafine	benomyl, bifonazole, chromium III, clotrimazole, coniine, CuSO <sub>4</sub> , cyproconazole, daphnetin, fenpropimorph, hygromycin, K252a, LiCl, lovastatin, LY-294002, menthol, miconazole, MMS, mycophenolic acid, myriocin, pectin, rapamycin, selumenitib, sertraline, sertraline + fluconazole, thiabendazole, verrucaridin
CNAG_00827	↓	WT	alexidine	none

Gene number	Abund. <sup>a</sup>	Pheno. <sup>b</sup>	Small molecule phenotype	
			Sensitivity	Resistance
CNAG_01097	↓	WT	none	none
CNAG_01181	↓		bifonazole, chloroquine, CuSO <sub>4</sub> , cyclosporine, FK506, fluconazole, K252a, mycophenolic acid, neomycin, palmitic acid, quinic acid, rapamycin, sodium molybdate, terbinafine	2-hydroxyethylhydrazine, hydrogen peroxide, myriocin, pectin
CNAG_01241	↓		trimethoprim	tellurite
CNAG_01362	↓	WT	none	none
CNAG_01375	↓	WT		
CNAG_01432	↓		sodium molybdate	none
CNAG_01540	↓	WT		
CNAG_01644	↓	Melanin defect	5-fluorocytosine, CuSO <sub>4</sub> , NiSO <sub>4</sub> , sodium molybdate	hydrogen peroxide, phenylarsine oxide, sodium tungstate
CNAG_01653*	↑	WT	none	none
CNAG_01817	↓		none	none
CNAG_01843	↓		FeCl <sub>2</sub> , fenpropimorph	none
CNAG_01846	↓	WT	none	none
CNAG_01897	↓		none	none
CNAG_02230	↓	WT	cerulenin, cycloheximide, NiSO <sub>4</sub> , sodium molybdate, terbinafine	malachite green, NH <sub>4</sub> Cl, tunicamycin
CNAG_02234	↓	WT		
CNAG_02445	↓		hydrogen peroxide	none
CNAG_02671	↓		none	none
CNAG_02827	↓	Melanin defect/ Growth defect		
CNAG_02833	↓	WT	none	none
CNAG_02994	↓	WT	none	BPS, sodium molybdate, taurolidine
CNAG_03019	↓	WT	hydrogen peroxide, mycophenolic acid, pentamidine isethionate, sodium molybdate	climbazole, quinic acid, rapamycin, sodium sulfite
CNAG_03038	↓	WT	none	pentamidine isethionate

Gene number	Abund. <sup>a</sup>	Pheno. <sup>b</sup>	Small molecule phenotype	
			Sensitivity	Resistance
CNAG_03058	↓	WT	none	none
CNAG_03771	↓	WT	sodium tungstate, taurolidine	hydrogen peroxide, K252a, LiCl, pentamidine isethionate
CNAG_04195	↓	WT		
CNAG_04346	↓	WT	5-fluorocytosine, amphotericin B, caffeine, cyclosporine, FeCl <sub>2</sub> , menadione, NA8, nigericin, prussian blue, S8, sodium molybdate, staurosporine, terbinafine	2-hydroxyethylhydrazine, K252a, lovastatin, MG132, taurolidine, trimethoprim
CNAG_04609	↓	WT	3-amino-triazole, brefeldin A, chlorpromazine, chromium III, cyclosporine, cyclosporine + FK506, hydrogen peroxide, K252a, latrunculin, menadione, quinic acid, rapamycin, sertraline + fluconazole, sodium molybdate, trimethoprim, tunicamycin, verrucaric acid	betulinic acid, BPS
CNAG_04835	↓	WT	none	none
CNAG_04962	↓	WT	antimycin, FeCl <sub>2</sub>	none
CNAG_05077	↓	WT	manganese sulfate, sodium molybdate, sodium sulfite, tunicamycin	LiCl
CNAG_05097	↓		3-amino-triazole	none
CNAG_05144	↓		none	none
CNAG_05148	↓		none	none
CNAG_05221	↓	WT	palmitic acid	sodium sulfite
CNAG_05258	↓	WT	sodium molybdate	pentamidine isethionate
CNAG_05311	↓		myriocin, polyoxin B, quinic acid	sodium molybdate
CNAG_05312	↑		coniine, CuSO <sub>4</sub> , metavanadate, palmitic acid, pentamidine isethionate, sodium molybdate, sodium sulfite, sodium tungstate	benomyl
CNAG_05437	↓	WT	none	none
CNAG_05465	↓	WT	none	none
CNAG_05540	↓	WT	amphotericin B, sodium molybdate	benomyl

Gene number	Abund. <sup>a</sup>	Pheno. <sup>b</sup>	Small molecule phenotype	
			Sensitivity	Resistance
CNAG_05570	↓	WT none		climbazole, sorafenib
CNAG_05689	↓	WT none		taurolidine
CNAG_05882	↓	Melanin defect	rapamycin, sodium molybdate	allantoin, CuSO <sub>4</sub> , pentamidine isethionate, tomatine
CNAG_06074*	↓	WT none		none
CNAG_06432	↓	WT none		none
CNAG_07316	↓		palmitic acid	sodium molybdate, sodium sulfite, taurolidine
CNAG_07464	↓		antimycin, bifonazole	sodium molybdate, sodium sulfite
CNAG_07717	↓		none	none

<sup>a</sup>Observed protein abundance under Pka1-induction.

<sup>b</sup>Phenotypic observations made on the mutant strains: WT refers to phenotypic similarity between the mutant strain and WT.

\*Significant proteins after multiple hypothesis testing (FDR < 0.05).