

Supplementary Table 4. List of DEG by each region overlapped with *MAT* genes

Gene	Description	Expression pattern in the Δ MAT strains ^a
UP-inside		
FGSG_00023	Spherulin-1A	DDN
FGSG_00199	Hypothetical protein	DNN
FGSG_00422	Hypothetical protein	NND
FGSG_00450	Hypothetical protein	DNN
FGSG_01459	Hypothetical protein	DNN
FGSG_01752	Hypothetical protein	DDN
FGSG_01800	Cell division control protein 24	DDN
FGSG_02038	Quinone oxidoreductase 2	UUN
FGSG_02137	NADH-cytochrome b5 reductase 1	D in OM
FGSG_02281	Malic acid transport protein	UUN
FGSG_02373	Hypothetical protein	DNN
FGSG_02645	Calpain-8	DNN
FGSG_02908	Choline monooxygenase, chloroplastic	NDN
FGSG_03211	Hypothetical protein	DND
FGSG_03247	Glycerol kinase	DDN
FGSG_03448	Respiratory supercomplex factor 2 homolog	D in OM
FGSG_03569	Galactose oxidase	DDD
FGSG_03749	N amino acid transport system protein	D in OM
FGSG_03819	Uncharacterized oxidoreductase	UNN
FGSG_04188	Putative HC-toxin efflux carrier TOXA	NND
FGSG_04811	NADPH-dependent conjugated polyketone reductase	DDN
FGSG_04876	Metal-nicotianamine transporter	DNN
FGSG_05059	Hypothetical protein	DDN
FGSG_05232	Hypothetical protein	DDN
FGSG_05574	General amino-acid permease GAP1	D in OM
FGSG_05663	Peptidoglycan-N-acetylglucosamine deacetylase	DDD
FGSG_05848	Siderophore iron transporter 1	D in OM
FGSG_06508	Arginine permease	D in OM
FGSG_06561	Hypothetical protein	DNN
FGSG_06596	Peroxisomal catalase 1	DNN
FGSG_06602	Hypothetical protein	NDN
FGSG_06735	Hypothetical protein	UNN
FGSG_07754	Hypothetical protein	DDN
FGSG_07925	Hypothetical protein	D in OM
FGSG_08076	Hypothetical protein	D in OM
FGSG_08230	UNC93-like protein	DDN
FGSG_08399	Hexokinase-1	UNN
FGSG_09621	Hypothetical protein	D in OM
FGSG_09707	Canalicular multispecific organic anion transporter	DDN
FGSG_09726	Transcription activator of gluconeogenesis ERT1	UNN

(Continued)

Supplementary Table 4. Continued

Gene	Description	Expression pattern in the Δ MAT strains ^a
FGSG_10013	Hypothetical protein	DDN
FGSG_10588	Hypothetical protein	DDN
FGSG_10603	Hypothetical protein	DDN
FGSG_10608	Retinol dehydrogenase 12	DDN
FGSG_10920	Putative NADP-dependent oxidoreductase	D in OM
FGSG_11081	Hypothetical protein	DDN
FGSG_11174	Calcium-independent phospholipase A2-gamma	D in OM
FGSG_11234	Helicase-like transcription factor	DDN
FGSG_11469	Obg-like ATPase 1	DNN
FGSG_11652	Hypothetical protein	DDN
FGSG_12207	Hypothetical protein	DDN
FGSG_13827	Hypothetical protein	DDN
FGSG_13829	Cysteine dioxygenase	NDN
FGSG_13869	Hypothetical protein	DDN
FGSG_13870	Hypothetical protein	DNN
DOWN-inside		
FGSG_00347	Hypothetical protein	NUN
FGSG_00572	Quinate permease	NUN
FGSG_01250	Probable beta-glucosidase btgE	DNN
FGSG_01734	High-affinity glucose transporter	DDN
FGSG_01764	Hypothetical protein	DDD
FGSG_02202	Endoglucanase-4	DNN
FGSG_02221	Hypothetical protein	D in OM
FGSG_02249	Hypothetical protein	DDN
FGSG_02330	L-ascorbate oxidase	NUN
FGSG_02339	Invertase 4	DDN
FGSG_02426	Phosphate-repressible phosphate permease	DDN
FGSG_02751	Probable inositol oxygenase	DDN
FGSG_03249	Glycerol-3-phosphate dehydrogenase, mitochondrial	DDN
FGSG_03312	Pathogenesis-related protein	DNN
FGSG_03336	Hypothetical protein	UUN
FGSG_03422	Phenolic acid decarboxylase	D in OM
FGSG_03495	Hypothetical protein	NUN
FGSG_03638	Alcohol oxidase	DDD
FGSG_03646	Uncharacterized transporter	DNN
FGSG_03954	Major allergen Asp f 2	NDN
FGSG_04022	Putative amidase	UUN
FGSG_04176	Allergen Asp f 4	DDD
FGSG_04579	Probable transporter MCH4	DDN
FGSG_04795	Hypothetical protein	UUN
FGSG_05048	Probable 4-hydroxy-2-oxoglutarate aldolase, mitochondrial	NUN

(Continued)

Supplementary Table 4. Continued

Gene	Description	Expression pattern in the Δ MAT strains ^a
FGSG_05797	Carboxypeptidase	DDN
FGSG_05839	Sugar transporter STL1	DDN
FGSG_07582	High-affinity glucose transporter ght1	UUN
FGSG_07894	None	DDN
FGSG_09113	None	NDN
FGSG_09235	Hypothetical protein	D in OM
FGSG_09718	Hypothetical protein	DDD
FGSG_09896	Isocitrate lyase	D in OM
FGSG_10052	Hypothetical protein	DDN
FGSG_10126	Acyl-CoA synthetase short-chain family member 3, mitochondrial	NNU
FGSG_10420	Hypothetical protein	UUN
FGSG_10636	Translationally-controlled tumor protein homolog	UUN
FGSG_10742	Plasma membrane fusion protein PRM1	DND
FGSG_11413	None	DDN
FGSG_12461	Beta-galactosidase	DDD
FGSG_13230	5-Methylthioadenosine/S-adenosylhomocysteine deaminase	DDN
FGSG_13962	Low-density lipoprotein receptor-related protein 1B	NDN

DEG, differentially expressed gene.

The first letter means the expression pattern in the Δ MAT1-1 strain, the second one is for the expression pattern in the Δ MAT1-2 strain, and three one is for the pattern in the Δ MAT1-1; Δ MAT1-2 strain (Kim et al., 2015).

^aD, down-regulated; U, up-regulated; N, no change; OM, the MAT1-2-1-overexpressing strain.