Supplemental Table 2. List of iron and Urbs1 repressed genes as deduced by microarray analysis*.

Probe set	um-Number**	Annotation**	Gene	FB1+Fe/FB1-Fe		FB1+Fe/BW12+Fe		potential Urbs1 bining site*** in promotor region	Functional category**
				Fold change	Adj. p-value	Fold change	Adj. p-value		
W170um132	um10188	- L-Ornithine N5-oxygenase	sid1	-4,78	9,9E-03	-2,60	1,0E-01	Yes	Iron metabolism
C158um132	um10189	- Sid2 - Ferrichrome siderophore peptide synthetase	sid2	-6,73	1,8E-03	-2,79	3,8E-02	Yes	Iron metabolism
C120um049	um00105	- probable FET3 - cell surface ferroxidase, high affi...	fer1	-10,84	2,6E-03	-9,76	5,2E-03	Yes	Iron metabolism
W125um049	um10023	- related to high-affinity iron permease	fer2	-19,80	6,2E-03	-15,88	1,4E-02	Yes	Iron metabolism
C55um222	um01434	- related to Ferrichrome siderophore peptide synthetase	fer3	-66,05	1,0E-03	-35,03	3,0E-03	Yes	Iron metabolism
W60um222	um01433	- related to Enoyl-CoA hydratase, mitochondrial precu...	fer4	-47,13	1,1E-04	-31,60	1,3E-04	Yes	Iron metabolism
C65um222	um01432	- related to N6-hydroxylysine acetyl transferase	fer5	-15,41	1,9E-04	-13,35	1,6E-04	Yes	Iron metabolism
W70um222	um01431	- related to ATP-binding cassette transporter protein...	fer6	-10,68	7,1E-04	-7,74	1,4E-03	Yes	Iron metabolism
W75um222	um11339	- related to Siderophore iron transporter 3	fer7	-2,28	4,0E-02	-1,95	1,2E-01	Yes	Iron metabolism
W76um222	um11338	- conserved hypothetical protein	fer8	-14,43	5,0E-04	-11,15	6,4E-04	No	Iron metabolism ?
W27um222	um01439	- probable FRE3 - strong similarity to ferric reducta...	fer9	-17,17	4,7E-04	-24,64	1,8E-04	Yes	Iron metabolism
C20um222	um11873	- hypothetical protein	fer10	-3,98	6,6E-03	-12,56	6,0E-04	Yes	Iron metabolism
C20um042	um05689	- conserved hypothetical protein		-23,50	8,9E-05	-31,43	4,3E-05	Yes	Fatty acid, lipid, isoprenoid metabolism
C10um114	um05631	- hypothetical protein		-3,90	2,3E-02	-3,08	7,7E-02	Yes	?
C35um051	um03814	- conserved hypothetical protein		-1,89	2,7E-02	-2,92	5,2E-03	Yes	?
W10um134	um05114	- related to multidrug resistance protein 4		-3,56	8,1E-03	-2,28	7,5E-02	Yes	Cellular transport, transport facilitation and transport routes
W20um029	um11104	- Nir1 - putative nitrite reductase	nir1	-2,18	7,0E-02	-205,94	3,6E-05	No	Energy
C75um232	um04523	- Ump1 - Low Affinity Ammonium transporter	ump1	-1,95	9,5E-02	-2,95	3,2E-02	No	Interaction with the cellular enviroment
W155um099	um05889	- Ump2 - High Affinity Ammonium transporter	ump2	-1,85	3,6E-02	-14,84	5,7E-05	No	Cellular transport, transport facilitation and transport routes
C100um138	um02626	- conserved hypothetical protein		-1,77	1,7E-01	-132,81	4,3E-05	No	?
W105um155	um04971	- related to fumarate reductase		-1,83	4,5E-01	-20,86	1,4E-02	No	Energy
C115um126	um02191	- conserved hypothetical protein		-19,20	1,2E-03	-14,81	2,5E-03	No	Transcriptional regulation
C121um068	um04910	- conserved hypothetical protein		-2,08	1,7E-01	-11,64	4,2E-03	No	?
C85um139	um10242	- putative protein		-4,43	8,2E-02	-9,56	3,3E-02	No	?
C65um280	um00374	- probable DAL5 - Allantoate and ureidosuccinate perm...		-1,72	1,6E-01	-7,13	2,5E-03	No	Cellular transport, transport facilitation and transport routes
C50um227	um11815	- related to Spindle pole body component alp4		-10,28	2,2E-04	-6,46	4,9E-04	No	Cell cycle and DNA processing
W125um148	um00783	- related to Heme oxygenase		-7,19	7,9E-04	-5,99	1,4E-03	No	Oxidative stress response
W115um074	um01812	- conserved hypothetical protein		-1,98	5,9E-02	-4,74	3,4E-03	No	?
W15um243	um03682	- conserved hypothetical protein		-1,76	1,6E-01	-4,70	9,4E-03	No	?
W130um013	um03523	- probable aldehyde dehydrogenase		-3,68	2,6E-03	-4,48	2,2E-03	No	Energy and metabolism
W25um043	um02801	- probable nadp-specific glutamate dehydrogenase		-3,94	4,7E-03	-4,24	6,4E-03	No	Protein with binding function or cofactor requirement
W55um283	um00309	- conserved hypothetical protein		-1,79	2,3E-01	-4,02	3,4E-02	No	?
W16um071	um10996	- conserved hypothetical protein		-4,58	1,6E-02	-4,00	3,9E-02	No	?
W40um198	um06336	- conserved hypothetical protein		-1,96	2,5E-02	-3,61	2,6E-03	No	?
C110um096	um11521	- related to A/G-specific adenine DNA glycosylase		-3,80	3,5E-02	-3,57	6,9E-02	No	Cell cycle and DNA processing
C200um074	um01793	- probable AAD14 - Putative aryl-alcohol reductase		-1,59	3,2E-01	-3,53	4,6E-02	No	Metabolism
C75um157	um02172	- related to methylglyoxal reductase (NADPH-dependent)		-3,47	3,8E-02	-3,31	7,2E-02	No	Cell rescue, defense and virulence
W20um198	um06340	- hypothetical protein		-4,73	2,7E-02	-3,18	1,1E-01	No	?
W120um074	um10248	- hypothetical protein		-1,91	8,4E-02	-3,09	1,9E-02	No	?
W90um018	um01194	- putative protein		-4,97	1,8E-03	-3,03	1,4E-02	No	?
C10um259	um10671	- related to Pectin lyase B precursor		-3,42	2,0E-02	-2,88	6,0E-02	No	Lyases
W124um171	um00072	- conserved hypothetical protein		-2,34	5,3E-02	-2,75	4,4E-02	No	?
C20um081	um03232	- conserved hypothetical Ustilago-specific protein		-2,66	2,5E-02	-2,66	4,3E-02	No	Ca-binding
W110um122	um01677	- hypothetical protein		-7,27	4,3E-03	-2,64	1,0E-01	No	?
C49um146	um05953	- putative protein		-3,06	1,8E-02	-2,50	6,5E-02	No	?
GAP01um258w	not found	- no annotation available		-2,16	3,5E-02	-2,44	3,3E-02		?
C60um254	um04833	- probable isovaleryl-CoA dehydrogenase		-2,28	6,3E-03	-2,34	9,6E-03	No	Metabolism
C131um135	um11137	- hypothetical protein		-2,84	3,4E-02	-2,32	1,1E-01	No	?
W110um010	um01257	- related to peroxisomal ATP carrier		-2,09	1,9E-02	-2,28	2,0E-02	No	Metabolism
W140um086	um06166	- hypothetical protein		-1,68	6,0E-02	-2,25	1,8E-02	No	?
W35um143	um10481	- conserved hypothetical protein		-1,66	1,1E-01	-2,22	4,3E-02	No	?
C89um269	um10215	- hypothetical protein		-4,79	1,7E-02	-2,12	2,8E-01	No	?
W40um066	um04190	- conserved hypothetical protein		-2,62	2,4E-02	-2,06	1,0E-01	No	?
C40um056	um01882	- related to multidrug resistance proteins		-2,02	2,1E-02	-1,92	4,7E-02	No	Cell rescue, defense and virulence
C155um019	um06422	- conserved hypothetical protein		-2,17	3,0E-02	-1,87	1,0E-01	No	?
UG24-1d14-47c8	um00813	- conserved hypothetical protein		-3,66	8,0E-03	-1,85	1,8E-01	No	?
C120um125	um05299	- putative protein		-3,98	4,1E-02	-1,83	4,7E-01	No	?
GAP01um210w	not found	- no annotation available		-2,29	2,5E-02	-1,81	1,2E-01		?
W60um225	um02146	- related to GABA permease		-3,66	6,3E-03	-1,80	1,8E-01	No	Cellular transport, transport facilitation and transport routes
C51um184	um05508	- probable GTP-binding protein 1		-2,84	2,6E-02	-1,75	2,7E-01	No	Protein with binding function or cofactor requirement
W123um068	um04912	- putative protein		-2,61	6,4E-03	-1,74	9,2E-02	No	?
W26um091	um02430	- putative protein		-3,20	1,9E-02	-1,70	3,1E-01	No	Heavy metal transport/detoxification
C240um074	um01784	- probable GPX2 - glutathione peroxidase		-2,52	3,4E-02	-1,61	3,2E-01	No	Cell rescue, defense and virulence
W25um140	um10665	- related to acyl-CoA dehydrogenase		-2,17	1,6E-02	-1,59	1,4E-01	No	Fatty acid, lipid, isoprenoid metabolism
W170um074	um01799	- putative protein		-1,70	4,8E-02	-1,57	1,2E-01	No	?
C75um228	um10273	- related to DELTA3,5-DELTA2,4-DIENOYL-COA ISOMERASE ...		-2,14	8,0E-03	-1,55	1,0E-01	No	Energy
W5um259	um04707	- conserved hypothetical protein		-2,17	1,2E-02	-1,53	1,6E-01	No	?

* Data were filtered for a fold change of < -1.50 for both comparisons and an adjusted p-value of < 0.05 for at least one of the two comparisons. Microarray data were submitted to the NCBI GEO database under the accession numbers GSE6037 and GSE6038.

** MUMDB (http://mips.gsf.de/genre/proj/ustilago/), (10/2006)

***Extended Urbs1 consensus as defined in this work (ATCG/TGATAAA/G).