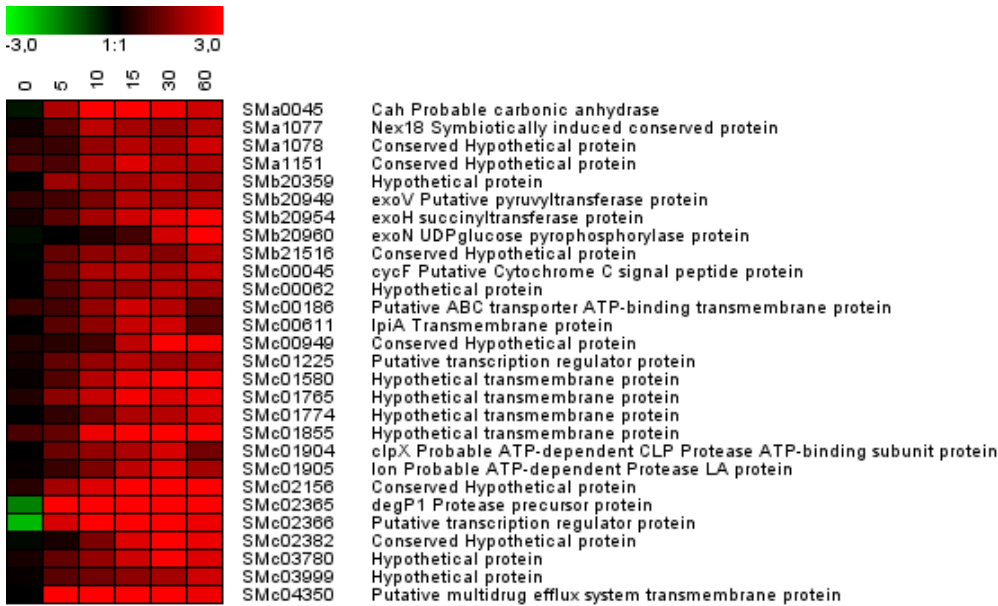
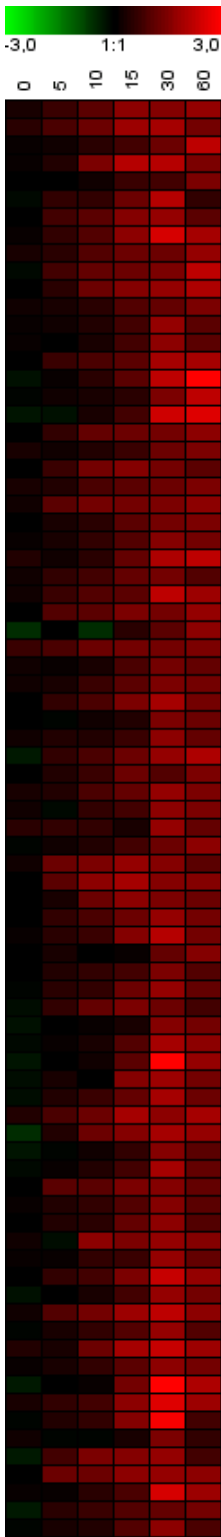


CLUSTER A

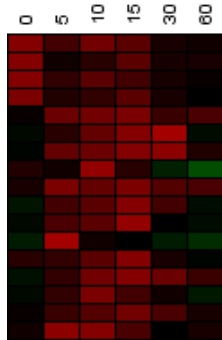


CLUSTER B



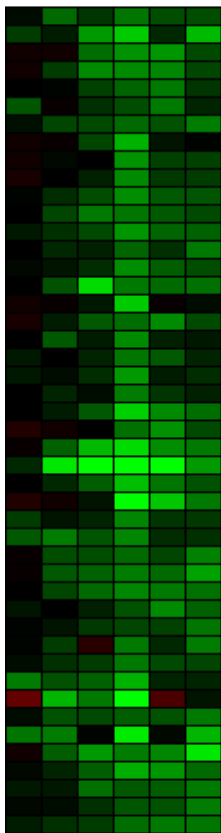
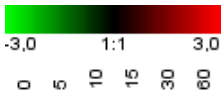
SMA0172	Conserved Hypothetical protein
SMA0473	Conserved Hypothetical protein
SMA0994	Hypothetical protein
SMA1079	TspO Tryptophan rich sensory protein homologue
SMB20486	Putative sugar ABC transporter permease protein
SMB20560	Conserved Hypothetical protein
SMB20696	Hypothetical protein
SMB20707	cyaG2 Putative adenylate cyclase protein
SMB20944	exoQ Putative polysaccharide polymerase, similar to Wzy protein
SMB20946	exoY galactosyltransferase protein
SMB20955	exoK endo-beta-1,3-1,4-glycanase protein
SMB20956	exoL Putative glucosyltransferase protein
SMB21236	Putative ATPGTP-binding protein
SMB21259	Hypothetical exported protein precursor
SMB21295	Putative small heat shock protein, hsp20 family
SMB21440	Hypothetical protein
SMB21491	Hypothetical exported protein
SMB21566	groEL5 Putative heat shock protein groEL
SMB21690	exoW glucosyltransferase protein
SMc00043	sodB Superoxide dismutase Fe protein
SMc00063	Hypothetical transmembrane protein
SMc00070	Conserved Hypothetical signal peptide protein
SMc00103	dhe Putative Alpha-halocarboxylic acid dehalogenase protein
SMc00115	Conserved Hypothetical protein
SMc00301	Conserved Hypothetical protein
SMc00302	Conserved Hypothetical protein
SMc00329	irr Putative Iron response regulator protein
SMc00341	Hypothetical transmembrane protein
SMc00346	Hypothetical transmembrane protein
SMc00591	Hypothetical/unknown signal peptide protein
SMc00610	Conserved Hypothetical protein
SMc00897	pmbA Hypothetical PMBA protein
SMc00914	Putative oxidoreductase protein
SMc01107	Conserved Hypothetical protein
SMc01142	grpE Probable heat shock protein
SMc01224	txxB Probable Thioredoxin reductase protein
SMc01341	Hypothetical/unknown protein
SMc01365	mrn Putative Exoribonuclease II protein
SMc01428	cspA2 Probable cold shock transcription regulator protein
SMc01440	hflC Putative hydrolase serine protease transmembrane protein
SMc01441	hflK Putative membrane bound Protease protein
SMc01556	Conserved Hypothetical protein
SMc01764	Hypothetical protein
SMc01769	Hypothetical protein
SMc01788	Hypothetical protein
SMc01813	Conserved Hypothetical protein
SMc02075	Conserved Hypothetical protein
SMc02078	exoR Exopolysaccharide biosynthesis regulatorY protein
SMc02109	clpA Probable ATP-dependent CLP Protease ATP-binding subunit protein
SMc02110	Conserved Hypothetical protein
SMc02187	Putative Integrase DNA protein
SMc02278	Hypothetical unknown transmembrane protein
SMc02390	gst7 Putative Glutathione S-transferase protein
SMc02433	clpB Probable ATP-dependent Protease (heat shock protein)
SMc02435	hemK1 Putative Methyltransferase protein
SMc02443	grxC Probable Glutaredoxin 3 protein
SMc02491	Hypothetical protein
SMc02560	chvI transcriptionAL regulatorY protein
SMc02575	hslV Probable heat shock protein
SMc02576	Hypothetical Acetyltransferase protein
SMc02655	Hypothetical transmembrane protein
SMc02720	clpP2 CLP Protease Proteolytic subunit protein
SMc02735	Hypothetical protein
SMc02885	msrA1 Probable peptide Methionine sulfoxide reductase protein
SMc02978	Conserved Hypothetical protein
SMc03151	Conserved Hypothetical protein
SMc03152	Hypothetical transmembrane protein
SMc03783	ctpA Putative Carboxy-terminal processing protease precursor signal peptide protein
SMc03802	Conserved Hypothetical protein
SMc03836	tesA Putative Acyl-coA Thioesterase I protein
SMc03838	Hypothetical transmembrane protein
SMc04040	ibpA Heat shock protein
SMc04091	htpX Putative Protease transmembrane protein
SMc04128	Putative heavy metal transporting ATPase protein
SMc04167	Putative Histidine-rich transporter transmembrane protein
SMc04246	Hypothetical transmembrane signal peptide protein
SMc04267	Hypothetical protein
SMc04459	ftsH Probable metalloprotease transmembrane protein
SMc04461	TolB protein precursor
SMc04865	Hypothetical protein

CLUSTER C



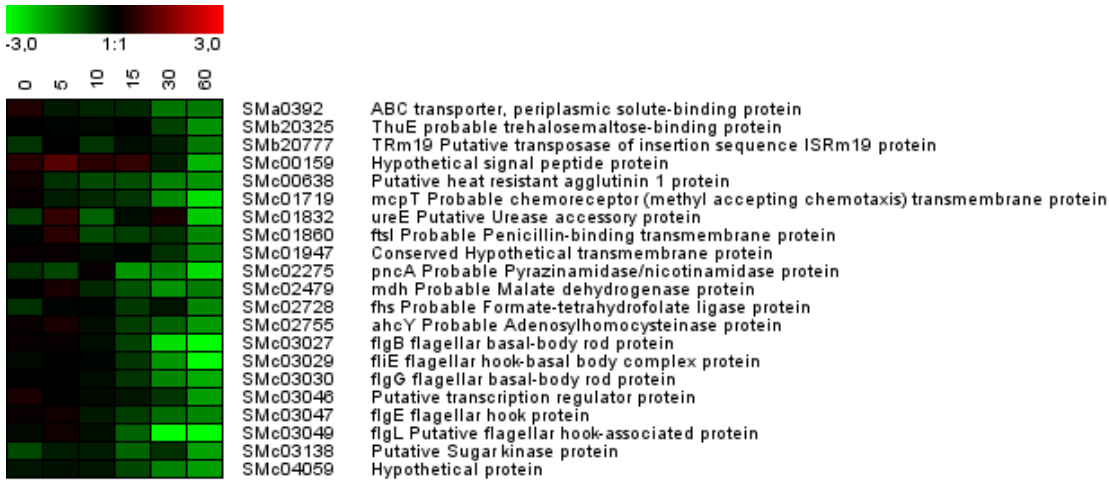
SMa1082	Hypothetical protein
SMa1182	NosZ N2O reductase
SMa1220	FixN1 Heme b / copper cytochrome c oxidase subunit
SMa1243	Azu1 pseudoazurin (blue copper protein)
SMa1981	Putative Polyhydroxyalkanoate depolymerase
SMb20811	dotA C4-dicarboxylate transport protein
SMc00109	Putative transcription regulator protein
SMc00641	serA Putative D-3-phosphoglycerate dehydrogenase protein
SMc01228	Putative transcription regulator protein
SMc01505	Hypothetical protein
SMc01815	Putative oxidoreductase Iron-sulfur protein
SMc02052	Conserved Hypothetical protein
SMc02108	Conserved Hypothetical protein
SMc02202	Hypothetical protein
SMc02518	Putative ATP-binding ABC transporter protein
SMc03893	Putative Amino-acid transport system permease ABC transporter protein
SMc03900	ndvA Beta-1-->2Glucan export ATP-binding protein

CLUSTER D

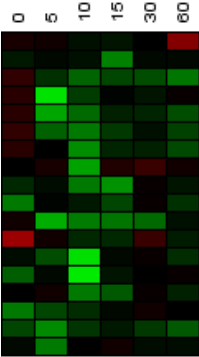


SMb20487	lyx Putative L-xylulose kinase protein
SMb20988	Conserved Hypothetical protein
SMb21176	phoD phosphate uptake ABC transporter periplasmic solute-binding protein precursor
SMb21177	phoC phosphate uptake ABC transporter ATP-binding protein
SMc00094	betB Betaine aldehyde dehydrogenase BADH oxireductase NAD protein
SMc00276	Conserved Hypothetical protein
SMc00283	Putative transcription regulator protein
SMc00565	rplI Probable 50S ribosomal protein L9
SMc01308	rplD Probable 50S ribosomal protein L4
SMc01309	rplC Probable 50S ribosomal protein L3
SMc01311	tufA Probable elongation factor TU protein
SMc01314	rpsL Probable 30S ribosomal protein S12
SMc01326	tufB Probable elongation factor TU protein
SMc01518	Conserved Hypothetical protein
SMc01578	aatA Aspartate aminotransferase A (transaminase) protein
SMc01848	Conserved Hypothetical protein
SMc02139	Hypothetical protein
SMc02146	Putative Phosphate-binding periplasmic protein
SMc02151	Hypothetical virulence associated protein homologue
SMc02284	Hypothetical signal peptide protein
SMc02392	Hypothetical protein
SMc02396	Probable Outer membrane protein
SMc02400	Probable Outer membrane protein
SMc02480	sucC Probable Succinyl-coA synthetase beta chain protein
SMc02582	Conserved Hypothetical protein
SMc02634	Hypothetical transmembrane protein
SMc02820	cpaF1 Putative pilus assembly protein
SMc02898	kdsB Probable 3-deoxy-manno-octulosonate cytidyltransferase (CMP-KDO synthetase) protein
SMc03000	Putative permease ABC transporter protein
SMc03018	Putative transcription regulator protein
SMc03037	flaA flagellin A protein
SMc03038	flaB flagellin B protein
SMc03039	flaD Probable flagellin D protein
SMc03050	flaF Putative flagellin synthesis regulator protein
SMc03090	cheW3 Putative chemotaxis protein
SMc03111	pmi Mannose-6-phosphate isomerase protein
SMc03205	purU1 Putative Formyltetrahydrofolate deformylase protein
SMc03245	Putative Amidase protein
SMc03290	Hypothetical protein
SMc03773	Conserved Hypothetical protein
SMc03788	dnaE2 Putative DNA Polymerase III Alpha chain protein
SMc03806	glnK Probable Nitrogen regulatorY protein PII 2
SMc04009	Conserved Hypothetical protein
SMc04026	glrD Probable glutamate synthase small chain protein
SMc04111	cpaC1 Putative pilus assembly transmembrane protein
SMc04346	ilvC ketol-acid reductoisomerase protein

CLUSTER E



CLUSTER F



SMa1750	Hypothetical protein
SMa1898	Hypothetical protein
SMb20436	Putative nitrate transporter protein
SMb20805	Putative ureashort-chain amide or branched-chain amino acid uptake ABC transporter periplasmic solute-binding protein precursor
SMb20984	nirB Putative nitrite reductase [NAD(P)H], large subunit protein
SMb20985	nirD Putative nitrite reductase [NAD(P)H], small subunit protein
SMb20986	narB Putative nitrate reductase, large subunit protein
SMb21707	Putative ureashort-chain amide or branched-chain amino acid uptake ABC transporter ATP-binding protein
SMc00810	hypothetical protein
SMc00827	Putative transport transmembrane protein
SMc02145	Hypothetical signal peptide protein
SMc02403	Putative Murein transglycosylase protein
SMc02980	Hypothetical protein
SMc03064	aglA Probable alpha-glucosidase protein
SMc03105	dxr Probable 1-deoxy-D-xylulose 5-phosphate reductoisomerase protein
SMc03784	Hypothetical transmembrane protein
SMc03819	Conserved Hypothetical protein
SMc04213	dGkA Diacylglycerol kinase protein