

Name	Synonym	Product
C4.3	SMD_0048	-
glnA	SMD_0103	glutamine synthetase
glnB	SMD_0104	nitrogen regulatory protein P-II
-	SMD_0155	glyoxalase
-	SMD_0193	3-dehydroquinate dehydratase
aceA	SMD_0200	Isocitrate lyase
-	SMD_0251	phage tail assembly protein I
-	SMD_0361	cytochrome oxidase biogenesis protein Cox11-CtaG, copper delivery to
msrA	SMD_0505	peptide methionine sulfoxide reductase MsrA
-	SMD_0512	asparagine synthetase
-	SMD_0515	TonB-dependent receptor
fimA	SMD_0595	Fimbrial protein precursor
-	SMD_0596	pili assembly chaperone: Bacterial pili assembly chaperone
mrkC	SMD_0597	outer membrane usher protein
rnpB	SMD_0632	-
-	SMD_0670	Ser/Thr protein phosphatase family protein,UDP-2,3-diacylglucosamine
-	SMD_0678	hemin uptake protein
huvA	SMD_0679	outer membrane hemin receptor
-	SMD_0680	hemin transport protein
-	SMD_0893	transcriptional regulator, PbsX family
-	SMD_0894	lipoprotein
-	SMD_0897	Plasmid replication initiator protein
tRNA-Se	SMD_0939	Ser tRNA
tRNA-Se	SMD_0963	Ser tRNA
C4.10	SMD_0989	-
-	SMD_0994	Outer membrane vitamin B12 receptor BtuB
-	SMD_1070	ferrichrome-iron receptor
-	SMD_1079	Iron-sulfur cluster regulator IscR
gip	SMD_1109	Hydroxypyruvate isomerase
-	SMD_1110	glucose-methanol-choline (GMC) oxidoreductase: NAD binding site
-	SMD_1112	multi-domain-containing protein
-	SMD_1115	oxidoreductase domain-containing protein
-	SMD_1116	nucleoside permease NupG
-	SMD_1117	inosose isomerase
-	SMD_1126	ArsR family transcriptional regulator
-	SMD_1147	malonyl CoA acyl carrier protein transacylase
citG	SMD_1148	Triphosphoribosyl-dephospho-CoA synthetase
-	SMD_1149	Phosphoribosyl-dephospho-CoA transferase
-	SMD_1150	malonate decarboxylase subunit gamma
-	SMD_1151	malonate decarboxylase subunit beta
-	SMD_1153	malonate decarboxylase subunit alpha
-	SMD_1154	OMR family iron-siderophore receptor precursor
-	SMD_1262	HxIR family transcriptional regulator
-	SMD_1266	Cobalt-zinc-cadmium resistance protein CzcD
-	SMD_1284	Zinc-regulated outer membrane receptor
-	SMD_1363	transcriptional regulator
-	SMD_1475	ISStmaD3 transposase B
smeV2	SMD_1504	RND multidrug efflux membrane fusion protein
-	SMD_1516	type IV secretory pathway, VirB4 components
merA	SMD_1555	mercuric ion reductase
topB	SMD_1567	DNA topoisomerase III

-	SMD_1568	Single-stranded DNA-binding protein in PFGI-1-like cluster
glk	SMD_1728	glucokinase
psiF	SMD_1752	PsiF repeat-containing protein
-	SMD_1753	ArsR family transcriptional regulator
-	SMD_1774	cytochrome P450
-	SMD_1825	LysR family transcriptional regulator YeiE
-	SMD_1847	enoyl-CoA hydratase
-	SMD_1873	D-beta-hydroxybutyrate dehydrogenase
-	SMD_1884	67 kDa myosin-crossreactive streptococcal antigen
-	SMD_1900	periplasmic binding protein
-	SMD_1907	ArsR family transcriptional regulator
-	SMD_1910	TetR family transcriptional regulator
-	SMD_1945	His repressor
hisB	SMD_1949	Histidinol-phosphatase
-	SMD_2011	succinate-semialdehyde dehydrogenase [NAD]
betI	SMD_2020	HTH-type transcriptional regulator BetI
fliK	SMD_2059	flagellar hook-length control protein FliK
fliH	SMD_2062	flagellar assembly protein FliH
flgK	SMD_2080	flagellar protein FlgJ
-	SMD_2117	integral membrane protein
iroE	SMD_2119	IroE protein
-	SMD_2152	cyclopropane-fatty-acyl-phospholipid synthase-like protein, clusters wit
-	SMD_2196	oxidoreductase
-	SMD_2202	endonuclease
-	SMD_2211	BLUF domain containing protein
-	SMD_2212	glycosyl transferase, group 2 family protein
-	SMD_2220	isochorismatase
-	SMD_2225	PTS system phosphoenolpyruvate-protein phosphotransferase
fruK	SMD_2226	1-phosphofructokinase
fruA	SMD_2227	PTS system fructose-specific transporter subunit IIB
rpfN	SMD_2228	RpfN protein
-	SMD_2234	Sialic acid-specific 9-O-acetylerase
-	SMD_2257	5,10-methylenetetrahydrofolate reductase
metR	SMD_2258	transcriptional activator MetR
msuE	SMD_2259	FMN reductase
-	SMD_2289	RebB protein
-	SMD_2302	cation transport protein
-	SMD_2311	Small-conductance mechanosensitive channel
C4.15	SMD_2322	-
-	SMD_2357	zinc-binding protein
copC2	SMD_2364	Copper resistance protein C precursor
smmC	SMD_2372	heavy metal RND efflux outer membrane protein,CzcC family
-	SMD_2392	nicotinamidase family protein YcaC
entA	SMD_2463	2,3-dihydro-2,3-dihydroxybenzoate dehydrogenase
-	SMD_2471	Coenzyme F420-dependent N5,N10-methylene tetrahydromethanopter
-	SMD_2472	GNAT family acetyltransferase
nrdF	SMD_2486	ribonucleotide reductase of class Ia (aerobic),beta subunit
nrdE	SMD_2487	ribonucleotide reductase subunit alpha
-	SMD_2491	Lactoylglutathione lyase and related lyases
mdtI	SMD_2492	Spermidine export protein mdtI
-	SMD_2493	Spermidine export protein mdtJ
-	SMD_2496	Iron(III) dicitrate transport protein FecA

-	SMD_2505	flp/Fap pilin component
-	SMD_2522	exoenzymes regulatory protein AepA precursor
-	SMD_2573	lipoprotein
-	SMD_2575	translation initiation inhibitor
-	SMD_2576	Cobalt-zinc-cadmium resistance protein
adi	SMD_2577	Lysine decarboxylase 2, constitutive
-	SMD_2578	amino acid permease
-	SMD_2581	redoxin domain-containing protein
zntR	SMD_2583	merR family transcriptional regulator
-	SMD_2620	NAD(P)H oxidoreductase YRKL
-	SMD_2656	two-component response regulator
C4.6	SMD_2668	-
tRNA-Se	SMD_2672	Ser tRNA
-	SMD_2689	formiminoglutamic iminohydrolase
hutI	SMD_2690	Imidazolonepropionase
hutH	SMD_2691	histidine ammonia-lyase
-	SMD_2692	N-formylglutamate deformylase
-	SMD_2693	urocanate hydratase
-	SMD_2752	ArsR family transcriptional regulator / Methyltransferase
-	SMD_2771	marR family transcriptional regulator
-	SMD_2837	AraC family transcriptional regulator
hmsR	SMD_2863	biofilm PGA synthesis N-glycosyltransferase PgaC
-	SMD_2913	3-oxoacyl-ACP reductase
-	SMD_2915	quinone oxidoreductase
-	SMD_3161	methyl-accepting chemotaxis protein I (serine chemoreceptor protein)
bfr	SMD_3173	Bacterioferritin
prpB	SMD_3182	methylisocitrate lyase
met2	SMD_3203	homoserine O-acetyltransferase
-	SMD_3215	hydrolase
fadE	SMD_3216	acyl-CoA dehydrogenase
-	SMD_3266	prophage LambdaSo, lysozyme
P	SMD_3271	phage terminase, ATPase subunit
L	SMD_3275	phage head completion-stabilization protein
lys	SMD_3279	Lytic enzyme
R	SMD_3281	phage tail protein
-	SMD_3342	lipoprotein
-	SMD_3343	ferric enterobactin receptor
-	SMD_3411	Ferric siderophore transport system, periplasmic binding protein TonB
cbIC	SMD_3435	alpha-fimbriae usher protein
fdnI	SMD_3448	formate dehydrogenase O subunit gamma
selA	SMD_3450	L-seryl-tRNA(Sec) selenium transferase
selB	SMD_3451	Selenocysteine-specific translation elongation factor
ssrS	SMD_3466	-
-	SMD_3494	Ferric siderophore transport system, periplasmic binding protein TonB
rpoE2	SMD_3502	Sigma factor, ECF subfamily
tam	SMD_3521	SAM-dependent methyltransferase
-	SMD_3525	dehydrogenase
dctA	SMD_3542	C4-dicarboxylate transport protein
citM	SMD_3550	Mg /citrate complex transporter
fabG3	SMD_3551	acetoacetyl-CoA reductase
-	SMD_3552	TonB-dependent receptor
fhuE	SMD_3599	OMR family iron-siderophore receptor precursor

nagA	SMD_3612	N-acetylglucosamine-6-phosphate deacetylase
-	SMD_3613	glucosamine-6-phosphate deaminase [isomerizing], alternative
smeE	SMD_3657	RND efflux system, inner membrane transporter
-	SMD_3742	two-component response regulator
-	SMD_3753	Secreted and surface protein containing fasciclin-like repeats
-	SMD_3756	translation initiation inhibitor, yjgF family
aroG	SMD_3803	2-keto-3-deoxy-D-arabino-heptulosonate-7-phosphate synthase I alpha
cutA	SMD_3816	periplasmic divalent cation tolerance protein cutA
-	SMD_3862	Isocitrate dehydrogenase kinase/phosphatase
-	SMD_3891	Bacterioferritin-associated ferredoxin
-	SMD_3944	Oxidoreductase
-	SMD_3955	ISStmaD3 transposase A
C4.7	SMD_3962	-
-	SMD_3967	TonB-dependent receptor
-	SMD_3973	extracellular serine protease
-	SMD_3982	Thiol-disulfide isomerase and thioredoxins
-	SMD_3983	GntR family transcriptional regulator domain / Aspartate aminotransferase
-	SMD_4079	chemotaxis protein
-	SMD_4203	marR family transcriptional regulator

Expression D457	Expression MBS411	Fold Change MBS411	Fold Change real
3	7	2,333333333	2,333333333
39	122	3,128205128	3,128205128
7	17	2,428571429	2,428571429
10	24	2,4	2,4
1	8	8	8
4	11	2,75	2,75
17	6	0,352941176	-2,833333333
3	10	3,333333333	3,333333333
1	4	4	4
204	93	0,455882353	-2,193548387
6	21	3,5	3,5
3053	958	0,313789715	-3,186847599
653	176	0,269525268	-3,710227273
338	115	0,340236686	-2,939130435
31686	71347	2,251688443	2,251688443
3	1	0,333333333	-3
31	13	0,419354839	-2,384615385
22	8	0,363636364	-2,75
17	7	0,411764706	-2,428571429
208	99	0,475961538	-2,101010101
13	27	2,076923077	2,076923077
5	13	2,6	2,6
3	19	6,333333333	6,333333333
6	17	2,833333333	2,833333333
3	1	0,333333333	-3
29	14	0,482758621	-2,071428571
326	143	0,438650307	-2,27972028
40	15	0,375	-2,666666667
5	11	2,2	2,2
4	9	2,25	2,25
3	12	4	4
4	12	3	3
2	10	5	5
12	42	3,5	3,5
5	15	3	3
3	7	2,333333333	2,333333333
4	12	3	3
3	13	4,333333333	4,333333333
11	27	2,454545455	2,454545455
8	30	3,75	3,75
18	37	2,055555556	2,055555556
21	9	0,428571429	-2,333333333
13	5	0,384615385	-2,6
111	226	2,036036036	2,036036036
8	2	0,25	-4
4	9	2,25	2,25
6	16	2,666666667	2,666666667
1	4	4	4
1	3	3	3
4	9	2,25	2,25
3	1	0,333333333	-3

2	7	3,5	3,5
66	152	2,303030303	2,303030303
24	55	2,291666667	2,291666667
16	35	2,1875	2,1875
2	10	5	5
11	5	0,454545455	-2,2
94	206	2,191489362	2,191489362
20	41	2,05	2,05
35	96	2,742857143	2,742857143
1	4	4	4
23	10	0,434782609	-2,3
13	6	0,461538462	-2,166666667
15	2	0,133333333	-7,5
25	10	0,4	-2,5
18	44	2,444444444	2,444444444
19	52	2,736842105	2,736842105
28	60	2,142857143	2,142857143
58	131	2,25862069	2,25862069
55	115	2,090909091	2,090909091
91	34	0,373626374	-2,676470588
39	10	0,256410256	-3,9
1	4	4	4
1	4	4	4
2	5	2,5	2,5
3	9	3	3
1	3	3	3
8	20	2,5	2,5
64	146	2,28125	2,28125
35	160	4,571428571	4,571428571
31	135	4,35483871	4,35483871
37	140	3,783783784	3,783783784
1	3	3	3
10	26	2,6	2,6
20	47	2,35	2,35
2	7	3,5	3,5
2	5	2,5	2,5
1	3	3	3
1	7	7	7
27	11	0,407407407	-2,454545455
1	3	3	3
6	2	0,333333333	-3
6	1	0,166666667	-6
5	2	0,4	-2,5
4	13	3,25	3,25
6	15	2,5	2,5
6	13	2,166666667	2,166666667
11	35	3,181818182	3,181818182
13	39	3	3
95	238	2,505263158	2,505263158
39	356	9,128205128	9,128205128
45	339	7,533333333	7,533333333
77	29	0,376623377	-2,655172414

1	4	4	4
1	3	3	3
3	7	2,333333333	2,333333333
20	48	2,4	2,4
60	178	2,966666667	2,966666667
179	600	3,351955307	3,351955307
265	625	2,358490566	2,358490566
10	23	2,3	2,3
9	22	2,444444444	2,444444444
8	3	0,375	-2,666666667
7	2	0,285714286	-3,5
9	4	0,444444444	-2,25
12	28	2,333333333	2,333333333
14	36	2,571428571	2,571428571
18	59	3,277777778	3,277777778
17	97	5,705882353	5,705882353
9	51	5,666666667	5,666666667
14	64	4,571428571	4,571428571
66	145	2,196969697	2,196969697
2	5	2,5	2,5
10	4	0,4	-2,5
2	5	2,5	2,5
12	5	0,416666667	-2,4
42	20	0,476190476	-2,1
132	61	0,462121212	-2,163934426
40	89	2,225	2,225
115	45	0,391304348	-2,555555556
1	3	3	3
5	17	3,4	3,4
19	45	2,368421053	2,368421053
38	15	0,394736842	-2,533333333
1	3	3	3
1	3	3	3
1	3	3	3
1	5	5	5
27	56	2,074074074	2,074074074
13	43	3,307692308	3,307692308
12	32	2,666666667	2,666666667
1	3	3	3
8	21	2,625	2,625
23	54	2,347826087	2,347826087
18	41	2,277777778	2,277777778
11482	36219	3,154415607	3,154415607
4	10	2,5	2,5
26	9	0,346153846	-2,888888889
4	9	2,25	2,25
10	21	2,1	2,1
33	7	0,212121212	-4,714285714
167	413	2,473053892	2,473053892
155	425	2,741935484	2,741935484
9	26	2,888888889	2,888888889
63	31	0,492063492	-2,032258065

41	96	2,341463415	2,341463415
47	105	2,234042553	2,234042553
319	74	0,231974922	-4,310810811
1	4	4	4
10	4	0,4	-2,5
15	7	0,466666667	-2,142857143
134	60	0,447761194	-2,233333333
71	35	0,492957746	-2,028571429
5	11	2,2	2,2
227	105	0,462555066	-2,161904762
3	1	0,333333333	-3
5	2	0,4	-2,5
6	1	0,166666667	-6
4	1	0,25	-4
2	5	2,5	2,5
4	9	2,25	2,25
2	5	2,5	2,5
64	24	0,375	-2,666666667
12	48	4	4