

File S6.

Changes involving SNPs

Locus Tag in Chicago	Locus Tag in Nichols ¹	Product	Strand ²	Amino acid mutation(s) and position in the ORF Nichols→Chicago	ORF coordinates in Chicago	Length in Chicago ³ (aa)	Length in Nichols ³ (aa)
TPChic0020	TP0020	Hypothetical protein	F	T(154)→S(142)	22088:24175	695	707
TPChic0106	TP0106	Choline/carnitine/betaine transporter family protein	R	F(388)→L(388) V(389)→L(389)	118845:120377	510	510
TPChic0154	TP0154	Putative S4 domain	F	R(50)→A(109) V(51)→L(110)	177126:178340	404	345
TPChic0350	TP0350	Glutamate-5-semialdehyde dehydrogenase, ProA	F	P(154)→A(154)	375863:377149	428	428
TPChic0379	TP0379	Preprotein translocase, SecA subunit	R	I(805)→S(805) ⁴	403630:406380	916	916
TPChic0433	TP0433	Hypothetical protein	F	R(252)→G(252)	403630:406380	256	256
TPChic0591	TP0591	HPr(Ser) kinase/phosphatase, HprK	R	F(45)→L(55) ⁴ V(46)→F(56)	642259:643248	329	319
TPChic0633	TP0633	Peptide methionine sulfoxide reductase MsrB/MsrA	F	Y(68)→D(68)	692633:693508	291	291
TPChic0640	TP0640	Methyl-accepting chemotaxis protein	F	S(610)→R(610)	700957:702801	614	614
TPChic0805	TP0805	Hypothetical protein	R	R(330)→A(326) ⁴	874908:876986	692	759
TPChic0854	TP0854	Hamp domain-containing protein	R	G(192)→D(192)	926238:930839	1533	1533
TPChic0983	TP0983	Conserved hypothetical protein	F	P(69)→R(13)	1067333:1067881	182	238

¹[6].

²F indicates the forward or plus (+) strand; R indicates the reverse or minus (-) strand.

³Size diversity reflects differences between the annotation of the Chicago genome and the annotation of the Nichols genome [#348].

⁴This change is caused by two SNPs in the same codon.

Changes involving indels and SNPs

Locus Tag in Chicago	Locus Tag in Nichols¹	Product	Strand²	Amino acid mutation(s) and position in the ORF Nichols→Chicago	ORF coordinates in Chicago	Length in Chicago³ (aa)	Length in Nichols³ (aa)
TPChic0006	TP0006 ⁴ TP0007 TP0008	Putative conserved protein	F	C→T substitution ⁵ 1 C insertion	7008:8261	417	55
TPChic0013	TP0013 ⁴ TP0014	Conserved hypothetical protein	F	GG insertion	12546:13778	410	221
TPChic0018	TP0018 ⁴ TP0019	Hypothetical protein	F	3 insertions (G, G, A)	19371:22052	893	657
TPChic0049	TP0049	Hypothetical protein	R	C insertion and A→G substitution ⁵	57507:58598	363	342
TPChic0076	TP0076	Sugar ABC transporter, permease protein	F	G insertion	83403:84233	276	273
TPChic0082	TP0082	Hypothetical protein	R	G insertion	90641:92227	528	600
TPChic0083	TP0083	Hypothetical protein	F	C insertion C insertion	92390:94372	660	426
TPChic0098	TP0098	Hypothetical protein	R	G deletion	106727:107383	218	216
TPChic0172	TP0172 ⁴ TP0173	Hypothetical protein	R	C insertion G deletion	192630:193994	454	175
TPChic0174	TP0174 ⁴ TP0175 TP0176	Hypothetical protein	R	G insertion 2 deletions (G, G)	194002:195522	506	280
TPChic0221	TP0221	D,D-carboxypeptidase, putative	F	C insertion	227381:228178	260	265
TPChic0284	TP0284 ⁴ TP0285	Conserved hypothetical protein	F	A insertion	299836:301479	547	219
TPChic0286	TP0286 ⁴ TP0287	Conserved hypothetical protein	F	G insertion	301430:302407	325	121
TPChic0288	TP0288 ⁴ TP0289	Cytidylyltransferase domain protein	F	G deletion	302407:304980	857	315
TPChic0299	TP0299 ⁴ TP0300	Ribose/galactose ABC transporter, ATP-binding protein	F	C insertion	313385:315142	585	74
TPChic0324	TP0324 ⁴ TP0325	Conserved hypothetical protein	F	G insertion	341119:345519	1466	485
TPChic0419	TP0419 ⁴ TP0420	5'-nucleotidase SurE	F	T deletion	448160:448930	256	187
TPChic0434	TP0434	Hypothetical protein	F	C→G substitution ⁷	448160:448930	256	187

TPChic0462	TP0462 ⁴	Conserved hypothetical protein	F	G insertion	492174:493448	424	280
TPChic0468	TP0463 TP0468 ⁴ TP0469	Hypothetical protein	R	G deletion A→G, T→C, G→A substitutions G deletion	496439:498391	650	176
TPChic0481	TP0481 ⁴ TP0482	Hypothetical protein	F	C insertion	511361:513691	776	477
TPChic0487	TP0487	Hypothetical protein	R	C insertion	520302:522080	592	525
TPChic0533	TP0533	Hypothetical protein	R	G insertion	576681:578366	561	454
TPChic0575	TP0575 ⁶	Phosphoenolpyruvate-protein phosphotransferase, PtsP	F	C insertion	624908:626980	690	215
TPChic0587	TP0587 ⁴ TP0588	Hypothetical protein	R	G insertion	640838:641860	340	254
TPChic0594	TP0594	Hypothetical protein	R	C deletion	647488:648165	225	202
TPChic0702	TP0702 ⁴ TP0703	M23/M37 peptidase domain-containing protein	R	C insertion	768588:769820	410	226
TPChic0781	TP0781 TP0782	Conserved hypothetical protein	R	A deletion G insertion	849653:850603	316	153
TPChic0813	TP0813	Hypothetical protein	R	C insertion	882695:883717	340	428
TPChic0859	TP0859 ⁴ TP0860	Hypothetical protein	F	G deletion	937023:938453	476	232
TPChic0866	TP0866 ⁶	Putative Mg chelatase homolog	R	C insertion	946144:948084	646	318
TPChic0899	TP0899 ⁴ TP0900	Deoxyribonuclease	R	C insertion	980801:983761	986	797
TPChic0926	TP0926	Signal peptidase I, putative	R	G insertion	1007553:1009388	611	512
TPChic0928	TP0928 ⁴ TP0929	Conserved hypothetical protein	F	G insertion	1009869:1011392	507	246

¹[6].

²F indicates the forward or plus (+) strand; R indicates the reverse or minus (-) strand.

³Size diversity reflects differences between the annotation of the Chicago genome and the annotation of the Nichols genome [6].

⁴The Chicago ORF to the left encompasses these Nichols ORFs.

⁵Nucleotide sequence in Nichols→Nucleotide sequence in Chicago

⁶These ORFs contain an authentic frameshift mutation in Nichols not present in Chicago.

⁷This is not the same substitution reported in Table 2.