

## **Geography Shapes the Genomics and Antimicrobial Resistance of *Salmonella enterica* Serovar Enteritidis Isolated from Humans**

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Table S1. *Salmonella* Enteritidis human isolates in the collection and associated genomic information on *Salmonella* Pathogenicity Islands (SPIs), presence of *spv* genes and sequence type (ST).

Isolate	Country	Year	Source	RA Accession No.	WGS Accession No.	SPIs	spv	ST
S74	China	2012	Stool	SRR11425857	CP050723	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S81	China	2012	Blood	SRR11425854	NZ_CP050721	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S95	China	2013	Stool	SRR11425852	NZ_CP050716	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S104	China	2013	Stool	SRR11425850	CP050712	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S109	China	2013	Stool	SRR11425848	NZ_CP050709	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S181	China	2016	Stool	SRR14574475	JAHIBE000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S183	China	2016	Stool	SRR14574474	JAHIBD000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S189	China	2016	Stool	SRR14574472	JAHIBC000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S190	China	2016	Stool	SRR14574471	JAHIBB000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S204	China	2016	Stool	SRR14574470	JAHIBA000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S205	China	2016	Stool	SRR14574469	JAHIAZ000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
S209	China	2016	Stool	SRR14574468	JAHIAY000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S211	China	2016	Stool	SRR14574467	JAHIAX000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S214	China	2016	Stool	SRR14574466	JAHIAW000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S216	China	2016	Stool	SRR14574465	JAHIAV000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
S225	China	2016	Stool	SRR14574473	JAHIAU000000000	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
5795	Germany	2014	Human	SRR3410212	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
5946	Germany	2014	Human	SRR3410213	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
6012	Germany	2014	Human	SRR3410214	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
6175	Germany	2014	Human	SRR3410215	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
6388	Germany	2014	Human	SRR3410216	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201405122	France	2014	Human	SRR3410217	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201405756	France	2014	Human	SRR3410218	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201405757	France	2014	Human	SRR3410219	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11

201405760	France	2014	Human	SRR3410220	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201405861	France	2014	Human	SRR3410221	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201600169	France	2016	Stool	SRR10674503	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
201607119	France	2016	Stool	SRR10674505	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
201607559	France	2016	Stool	SRR10674513	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201608919	France	2016	Stool	SRR10674517	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
16EP000866	Norway	2016	Human	ERR2676735	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
16EP001008	Norway	2016	Human	ERR2676733	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
16EP001290	Norway	2016	Human	ERR2676731	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
16EP001384	Norway	2016	Human	ERR2676732	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
16EP001503	Norway	2016	Human	ERR2676736	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
16EP002245	Norway	2016	Human	ERR2676734	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
133218	nited Kingdom	2015	Human	SRR5757182	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	183
137161	nited Kingdom	2015	Human	SRR7297911	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
138357	nited Kingdom	2015	Human	SRR5194051	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
161872	nited Kingdom	2015	Human	SRR3312356	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
173732	nited Kingdom	2015	Human	SRR5757195	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	183
182120	nited Kingdom	2013	Human	SRR5219334	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
182121	nited Kingdom	2013	Human	SRR5219436	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
190566	nited Kingdom	2015	Human	SRR7292873	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
190768	nited Kingdom	2015	Human	SRR5220934	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
273546	nited Kingdom	2016	Human	SRR5215642	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
273568	nited Kingdom	2016	Human	SRR5216571	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	183
278106	nited Kingdom	2016	Human	SRR6900182	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
278154	nited Kingdom	2016	Human	SRR8667281	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	5895
289642	nited Kingdom	2016	Human	SRR5220223	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
293745	nited Kingdom	2016	Human	SRR5216469	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
313428	nited Kingdom	2016	Human	SRR5193621	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11

323071	nited Kingdom	2016	Human	SRR6920101	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
37009	nited Kingdom	2014	Human	SRR1966925	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	183
37045	nited Kingdom	2014	Human	SRR3417493	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
45605	nited Kingdom	2014	human	SRR3417496	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
49692	nited Kingdom	2014	Human	SRR3417498	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
497131	nited Kingdom	2013	Human	SRR7451161	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
49740	nited Kingdom	2014	Human	SRR1958537	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
500262	nited Kingdom	2013	Human	SRR7284424	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
50129	nited Kingdom	2014	Human	SRR1957893	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
503131	nited Kingdom	2013	Human	SRR7902691	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
60143	nited Kingdom	2014	Human	SRR1966064	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
62513	nited Kingdom	2014	Human	SRR1958526	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H120980502	nited Kingdom	2012	Human	SRR1645250	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H122060292	nited Kingdom	2012	Human	SRR1639015	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	1925
H122280366	nited Kingdom	2012	Human	SRR1645898	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H122800341	nited Kingdom	2012	Human	SRR1635115	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H122820788	nited Kingdom	2012	Human	SRR1645641	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H122880621	nited Kingdom	2012	Human	SRR1646224	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H123280504	nited Kingdom	2012	Human	SRR1645738	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
H123540624	nited Kingdom	2012	Human	SRR1646123	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H123740526	nited Kingdom	2012	Human	SRR1646393	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H124180493	nited Kingdom	2012	Human	SRR1646223	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H124220645	nited Kingdom	2012	Human	SRR5814208	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	183
H124420608	nited Kingdom	2012	Human	SRR1646252	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
H130220269	nited Kingdom	2013	Human	SRR1646083	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN029318	United States	2015	Stool	SRR1805601	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN029532	United States	2015	Stool	SRR1828977	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN030338	United States	2015	Stool	SRR1982188	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11

CFSAN030342	United States	2015	Stool	SRR1982124	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN032432	United States	2015	Stool	SRR1998961	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN032798	United States	2015	Stool	SRR2035441	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN033186	United States	2015	Urine	SRR2035447	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN033727	United States	2015	Stool	SRR2047358	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN033954	United States	2015	Stool	SRR2047362	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN033958	United States	2015	Stool	SRR2054257	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN034156	United States	2015	Ascitic Fluid	SRR2056002	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN034663	United States	2015	Stool	SRR2072484	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN035607	United States	2015	Stool	SRR2102442	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN046971	United States	2015	Blood	SRR3198650	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN046972	United States	2015	Stool	SRR3198651	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN046973	United States	2016	Stool	SRR3198652	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047797	United States	2015	Blood	SRR3219249	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047798	United States	2015	Stool	SRR3219250	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047799	United States	2015	Stool	SRR3224203	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047800	United States	2015	Stool	SRR3219120	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047801	United States	2015	Stool	SRR3219121	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047802	United States	2015	Stool	SRR3219123	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047803	United States	2015	Stool	SRR3219124	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047804	United States	2015	Stool	SRR3219125	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047805	United States	2015	Stool	SRR3219127	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047806	United States	2015	Stool	SRR3219133	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN047807	United States	2015	Stool	SRR3219135	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN038683	United States	2015	Stool	SRR2533493	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN039269	United States	2015	Blood	SRR2559367	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN040200	United States	2015	Blood	SRR2831441	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN040203	United States	2015	Stool	SRR2831444	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11

CFSAN047895	United States	2016	Stool	SRR3271876	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN048622	United States	2016	Stool	SRR3372228	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN051776	United States	2016	Stool	SRR3707420	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN053061	United States	2016	Stool	SRR3990988	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN053426	United States	2016	Stool	SRR4022300	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
MDH_2014_00245	United States	2012	Stool	SRR1188480	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
MDH_2014_00247	United States	2012	Arm Swab	SRR1188464	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
MDH_2014_00248	United States	2013	Stool	SRR1188538	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
MDH_2014_00255	United States	2014	Stool	SRR1188508	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
MDH_2014_00256	United States	2014	Stool	SRR1188434	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
MDH_2014_00782	United States	2014	Stool	SRR1257318	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
MDH_2014_00789	United States	2014	Stool	SRR1263418	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
MDH_2014_00806	United States	2014	Urine	SRR1300694	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
MDH_2014_00808	United States	2014	Stool	SRR1302837	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
MDH_2014_00810	United States	2014	Stool	SRR1302865	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN018241	United States	2014	Stool	SRR1334489	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN022980	United States	2014	Urine	SRR1536148	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN022981	United States	2014	Stool	SRR1536142	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN024112	United States	2014	Stool	SRR1574286	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
NY_55235726	United States	2015	Stool	SRR1979446	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY_swgs1356	United States	2014	Wound	SRR1521521	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN025251	United States	2014	Stool	SRR1633506	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY56657591	United States	2015	Stool	SRR2085497	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY58277053	United States	2015	Stool	SRR2218462	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY58474062	United States	2015	Stool	SRR2296842	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY59080619	United States	2015	Stool	SRR2847920	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY59297727	United States	2015	Body Fluid	SRR2891000	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
NY63966472	United States	2016	Stool	SRR3457611	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11

CFSAN047178	United States	2016	Stool	SRR3215231	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN050983	United States	2016	Stool	SRR3606935	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN052649	United States	2016	Stool	SRR3824012	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN053020	United States	2016	Stool	SRR3944461	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN055194	United States	2016	Stool	SRR4256079	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN056386	United States	2016	Stool	SRR5058013	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN056389	United States	2016	Urine	SRR5057975	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN056391	United States	2016	Stool	SRR5057976	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN058045	United States	2014	Stool	SRR5139134	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN058048	United States	2014	Stool	SRR5139133	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN058050	United States	2014	Stool	SRR5139183	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN058057	United States	2014	Stool	SRR5139184	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN058115	United States	2014	Stool	SRR5152277	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN058116	United States	2014	Stool	SRR5152274	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN059116	United States	2016	Stool	SRR5182245	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN059117	United States	2016	Stool	SRR5182250	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
swgs1025	United States	2013	Stool	SRR1187594	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
swgs1062	United States	2013	Blood	SRR1187422	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
swgs1069	United States	2013	Stool	SRR1187438	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
swgs1079	United States	2013	Stool	SRR1187417	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
swgs1194	United States	2013	Stool	SRR1187596	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN072891	United States	2013	Stool	SRR6377133	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
CFSAN072892	United States	2013	Stool	SRR6377123	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
CFSAN072894	United States	2013	Stool	SRR6377127	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
CFSAN072902	United States	2013	Stool	SRR6377031	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	*
CFSAN072909	United States	2013	Stool	SRR6411492	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
CFSAN072936	United States	2014	Stool	SRR7749331	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
CFSAN072938	United States	2014	Stool	SRR6491046	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11

CFSAN072939	United States	2014	Stool	SRR6498587	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23	positive	11
WAPHL_SAL_A00615	United States	2014	Stool	SRR1576209	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN023725	United States	2014	Stool	SRR1576023	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN024924	United States	2014	Stool	SRR1615109	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN024929	United States	2014	Stool	SRR1615087	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN024932	United States	2014	Stool	SRR1615104	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN027409	United States	2014	Stool	SRR1709664	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN030353	United States	2014	Stool	SRR1973913	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN030354	United States	2014	Stool	SRR1973686	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN030355	United States	2015	Stool	SRR1973786	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
CFSAN039202	United States	2015	Stool	SRR2648211	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
MLI21	Mali	2002	Blood	ERR025166	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
MLP43	Mali	2005	Blood	ERR025174	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
31_88	Uruguay	1988	Gastroenteritis	ERR036132	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	1974
08_89	Uruguay	1989	Blood	ERR036134	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	1974
8_02	Uruguay	2002	Stool	ERR036138	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
214_02	Uruguay	2002	Blood	ERR036139	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	negative	11
10_05	Uruguay	2005	Stool	ERR036140	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
KUMAR19	United Kingdom	2009	Stool	ERR048520	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
A59040	Malawi	2010	Blood	ERR235154	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
A51073	Malawi	2008	Blood	ERR235181	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
32863	Congo	2011	Blood	ERR235296	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
33013	Congo	2011	Blood	ERR235298	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
34233	Congo	2011	Blood	ERR235323	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
1020983	Malawi	2011	Blood	ERR235380	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
SAEN4582	Uganda	1997	Blood	ERR311309	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
463134	South Africa	2010	Blood	ERR338905	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
177883	South Africa	2007	Blood	ERR338920	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11

516364	South Africa	2011	Blood	ERR338923	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
06_6063	Senegal	2006	Blood	ERR369359	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI23, SPI24	positive	11
201007599	Mali	2010	Blood	ERR369418	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
W47	Mali	2012	NA	ERR374229	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11
V91	Mali	2011	NA	ERR374236	NA	SPI1-6, SPI9-14, SPI16-17, SPI19, SPI24	positive	11

Table S2. Clade II specific genes and assigned gene-ontology terms.

Gene names in Prokka	Clade II specific	Product	Biological Process	Molecular Function
adaA	all	Bifunctional transcriptional activator/DNA repair enzyme AdaA	GO:0033554, GO:0006259	GO:0016740, GO:0003676, GO:0043167
ampC	S211	blaCMY-2	GO:0017001, GO:0046677	GO:0016787
appA	all	Oligopeptide-binding protein AppA	GO:0055085, GO:0015833	GO:0005215
arfA	all	Alternative ribosome-rescue factor A	GO:0006414	GO:0003676
ariR	not in 201600169	putative two-component-system connector protein AriR	GO:0071468, GO:0044010, GO:0042542	GO:0003676
bdbD	all	Disulfide bond formation protein D	GO:0030420	GO:0016491
bepE	S104, S109, S74, S95	Efflux pump membrane transporter BepE	GO:0055085	GO:0015562
besA	all	Ferri-bacillibactin esterase BesA	N/A	GO:0052689
betC	all	Choline-sulfatase	GO:0042425	GO:0016787, GO:0043167
bfpA	not in 201600169, 201607119, 201607559	Major structural subunit of bundle-forming pilus	N/A	N/A
bpoA1	all	Non-heme chloroperoxidase CPO-A1	GO:0098869, GO:0017000	GO:0004601
casA	all	CRISPR system Cascade subunit CasA	GO:0051607	GO:003676, GO:0046872
casD	all	CRISPR system Cascade subunit CasD	GO:0051607, GO:0006259	GO:003676
cat1	all	Succinyl-CoA:coenzyme A transferase	GO:006082, GO:006084	GO:0016740
cbh	all	Choloylglycine hydrolase	GO:0006699, GO:0006629	GO:0016787
ccmK1	all	Carbon dioxide-concentrating mechanism protein CcmK	GO:0015977	N/A
ccmK2	all	Carbon dioxide-concentrating mechanism protein CcmK	GO:0015977	N/A
ccp	all	Cytochrome c551 peroxidase	GO:0098869	GO:0004601
chiA	all	Chitinase A	GO:0006032, GO:0000272	GO:0016787, GO:0008061
cia	S211	Colicin-Ia	GO:0042742, GO:0019835	N/A
clcD	all	Carboxymethylenebutenolidase	GO:0019439	GO:0016787
comEA	all	ComE operon protein 1	GO:0015628, GO:0030420, GO:0006281	GO:0003676
comEC	all	ComE operon protein 3	GO:0030420	N/A
cpo	all	Non-heme chloroperoxidase	GO:0098869, GO:0017000	GO:0004601
dhfrI	S216	Dihydrofolate reductase type 1	GO:0046654, GO:0006730, GO:0042221	GO:0016491, GO:0000166
dpnA	S74	Modification methylase DpnIIB	GO:0006306	GO:0016740, GO:0003676
dprA	all	DNA processing protein DprA	GO:0039420	GO:0003676
eae	all	Intimin	GO:0007155	N/A
ecoRIIR	CFSAN030342, NY_swgs1356	Type-2 restriction enzyme EcoRII	GO:0090304	GO:0016787, GO:0004518, GO:0003676
entD	all	Enterobactin synthase component D	GO:0006464, GO:0009239	GO:0046872, GO:0008897, GO:0016740

epsL	not in 201600169, 201607119	putative sugar transferase EpsL	N/A	GO:0016740
exsA	all	Exoenzyme S synthesis regulatory protein ExsA	GO:0006355	GO:0140110, GO:0003676
fimA	all	Fimbrial subunit type 1	GO:0007155	GO:0005198
fliV	all	Flagellar biosynthetic protein FliV	GO:0044781	N/A
folA	all	Dihydrofolate reductase	GO:0042221, GO:0009410	GO:0016491, GO:0000166, GO:0043167, GO:0005542
fosA	S104	Glutathione transferase FosA	GO:0042221	GO:0016740, GO:0043167
gadW	all	HTH-type transcriptional regulator GadW	GO:0006355	GO:0140110, GO:0003676
gspA	not in 201600169, 201607119, 201607559	General stress protein A	N/A	GO:0016740, GO:0043167, GO:0000166
hcpD	all	Putative beta-lactamase HcpD	GO:0042221	GO:0016787
hsdR	in 31 isolates	Type I restriction enzyme EcoR124II R protein	GO:0090304	GO:0003676, GO:0016787, GO:0004518, GO:0004386,
hxlR	all	HTH-type transcriptional activator HxlR	N/A	GO:0003676
icaB	all	Poly-beta-1,6-N-acetyl-D-glucosamine N-deacetylase	GO:0005975	GO:0016787
kanE	all	Alpha-D-kanosaminyltransferase	GO: 1901133	GO:0016740
kcsA	all	pH-gated potassium channel KcsA	GO:0071805, GO:0005249	GO:0005515
lppC	all	Putative lipoprotein LppC	N/A	N/A
ltrA	H122820788	Group II intron-encoded protein LtrA	GO:0071897, GO:0090304	GO:0016772, GO:0016787
malX	all	PTS system maltose-specific EIICB component	GO:0098704, GO:0034219	GO:0005215, GO:0016772, GO:0005515
mcpQ	all	Methyl-accepting chemotaxis protein McpQ	GO:0006935, GO:0007165	N/A
meh	not in 201600169, 201607119	Mesaconyl-C(4)-CoA hydratase	N/A	N/A
merA	S216	Mercuric reductase	GO:0050787, GO:0045454	GO:0016491, GO:0043167, GO:0000166
merC	S216	Mercuric transport protein MerC	GO:0015694, GO:0046689	GO:0043167
merP	S216	Mercuric transport protein periplasmic component	GO:0015694, GO:0046689	GO:0043167, GO:0015075
merT	S216	Mercuric transport protein MerT	GO:0015694, GO:0046689	GO:0043167, GO:0015075
mftF	not in 201600169, 201607119, 201607559, S214	Putative mycofactocin biosynthesis glycosyltransferase MftF	N/A	GO:0016740
moeZ	all	putative adenyltransferase/sulfurtransferase	GO:0019344	GO:0016740, GO:0003824, GO:0000166
neo	S104, 109, S181, S189, S204, S225, S74, S95	Aminoglycoside 3'-phosphotransferase	GO:0016310, GO:0046677	GO:0016740, GO:0000166
oatA	not in 201600169, 201607119, 201607559, S216	O-acetyltransferase OatA	GO:0009103	GO:0016740
pasI	all	Persistence and stress-resistance antitoxin PasI	pasT/pasI toxin-antitoxin system	
pchR	all	Regulatory protein PchR	GO:0006355	GO:0003676
pemI	06_6063, S104, S109, S181, S189, S204, S225, S74, S95	Antitoxin PemI	N/A	GO:0003676
pemK	06_6063, S104, S109, S181, S189, S204, S225, S74, S95	Endoribonuclease PemK	GO:0090305	GO:0003676, GO:0016787
pgaB	all	Poly-beta-1, 6-N-acetyl-D-glucosamine N-deacetylase	GO:0098732	GO:0016787

pifC	06_6063	Transcriptional repressor PifC	N/A	N/A
pilE1	all	Fimbrial protein	GO:0007155	N/A
pndA	06_6063, H122820788, S211, S81	Protein PndA	toxic component in TA system	
prn	not in 190768, 201600169, 201607119, 201607559, S214,	Pertactin autotransporter	GO:0007155	GO:0005515
prtR	H120980502	HTH-type transcriptional regulator PrtR	GO:0030152, GO:1900377	GO:0003676
pstS1	all	Phosphate-binding protein PstS 1	GO:0055085, GO:0009267, GO:0006811	GO:0005515, GO:0043167
repE	S74, NY_sgws1356, CFSAN030342	Replication initiation protein	GO:0006260, GO:0071897	GO:0034061, GO:0003676
rffH	all	Glucose-1-phosphate thymidyltransferase 2	GO:0045226	GO:0016740, GO:0043167, GO:0005515
rsr	all	60 kDa SS-A/Ro ribonucleoprotein	N/A	GO:0005515, GO:0003676, GO:0043167
rutB	H122060292	Peroxyureidoacrylate/ureidoacrylate amidohydrolase RutB	GO:0019740	GO:0016787
sadH	all	Putative oxidoreductase SadH	GO:0009268	GO:0016491
sfp	all	4'-phosphopantetheinyl transferase sfp	GO:0009085, GO:0017000, GO:0036211	GO:0016740, GO:0043167
siaQ	all	Sialic acid TRAP transporter small permease protein SiaQ	GO:0008643	GO:0022857
spo0C	13 isolates	Chromosome-partitioning protein Spo0J	N/A	N/A
tlyC	all	Hemolysin C	GO:0019835	GO:0050660, GO:0090729
tnpA	S104, 109, S181, S189, S204, S225, S74, S95	Transposase for transposon Tn5	GO:0006355	GO:0003676
torI	H120980502	Response regulator inhibitor for tor operon	GO:2000143, GO:0006259	GO:0005515, GO:0003676
tufA	in 21 isolates	Elongation factor Tu 1	GO:0006414	GO:0016787, GO:0005515, GO:0000166, GO:0003746
virB1	S0129, S216	Type IV secretion system protein VirB11	GO:0032940	GO:0005524, GO:0000166
wfgD	all	UDP-Glc:alpha-D-GlcNAc-diphosphoundecaprenol beta-1,3-glucosyltransferase WfgD	GO:0009103	GO:0016740
yafN	CFSAN030338	Antitoxin YafN	GO:0009432, GO:0044092, GO:0006355	GO:0003676, GO:0005515
ycdT	all	putative diguanylate cyclase YcdT	GO:0042710,	GO:0016740, GO:0000166, GO:0005525, GO:0043167
yefM	all	Antitoxin YefM	GO:0045892, GO:0042710	GO:0003676, GO:0015643
yegE	all	putative diguanylate cyclase YegE	N/A	GO:0016740, GO:0005525, GO:0000166, GO:0043167
ygaZ	all	Inner membrane protein YgaZ	GO:1903785	N/A
yhdN	all	General stress protein 69	GO:0007165	GO:0000155, GO:0016491, GO:0005515
yhjX	all	putative MFS-type transporter YhjX	GO:0055085, GO:0031669	GO:0022857
yiaB	all	Inner membrane protein YiaB	GO:0033554	N/A
yokD	S95	SPBc2 prophage-derived aminoglycoside N(3')-	GO:0046677	GO:0016740
yvqK	all	Cob(I)yrinic acid a, c-diamide adenosyltransferase	GO:00009236	GO:0016740, GO:0000166, GO:0005524
ywaD	all	Aminopeptidase YwaD	GO:0019538	GO:0008233





