

**S1 Table.** *Streptococcus* genomes used in the study.

STRAIN	ACCESSION NUMBER	TOTAL LENGTH (MB)	PROTEIN COUNT	GC%	Host
<b>SDSD ATCC 27957</b>	NZ_CM001076.1	2.14184	3972	39.4	Bovine
<b>SDSD DB31752-13</b>	NZ_CP033164.1	2.31957	2026	39.3	Human
<b>SDSD DB49998-05</b>	NZ_CP033163.1	2.17141	1850	39.4	Human
<b>SDSD DB60705-15</b>	NZ_CP033165.1	2.19066	1944	39.4	Human
<b>SDSD DB53993-17</b>	INSDC: REF000000000.1	2.17042	1966	39.6	Human
<b>SDSD Kdys0611</b>	NZ_AP018726.1	2.22482	1961	39.9	Fish
<b>SDSD NCTC13731</b>	NZ_UHFH000000000.1	2.1517	1920	39.2	Bovine
<b>SDSD NCTC4669</b>	NZ_LR134094.1	2.20189	1987	39.2	Bovine
<b>SDSD NCTC4670</b>	NZ_UHFG000000000.1	2.25218	2032	39.3	Bovine
<b>SDSD STREP97-15</b>	NZ_CP033166.1	2.43257	2211	39.5	Fish
<b>SDSE NCTC11554</b>	NZ_LR594047.1	2.23328	2062	39.5	Human
<b>SDSE NCTC5370</b>	NZ_LS483318.1	2.07995	1898	39.5	not available
<b>SDSE NCTC5371</b>	NZ_LS483367.1	2.10376	1858	39.6	not available
<b>SDSE NCTC6179</b>	NZ_LS483361.1	2.2552	2033	39.8	Horse
<b>SDSE NCTC6181</b>	NZ_LR134316.1	2.2699	2049	39.7	not available
<b>SDSE NCTC7136</b>	NZ_LS483413.1	2.24923	2084	39.4	not available
<b>SDSE NCTC9413</b>	NZ_LR594045.1	2.24174	2019	39.5	Human
<b>SDSE NCTC9414</b>	NZ_LS483363.1	2.16967	2026	39.5	Human
<b>SDSE 167</b>	NZ_AP012976.1	2.0764	1647	39.6	Human
<b>SDSE AC-2713</b>	NZ_HE858529.1	2.17944	1941	39.5	Human
<b>SDSE ATCC 12394</b>	NZ_CP002215.1	2.15949	1893	39.5	Human
<b>SDSE GGS 124</b>	NZ_AP010935.1	2.10634	1931	39.6	Human
<b>SDSE RE378</b>	NZ_AP011114.1	2.15115	1866	39.5	Human
<b>SD NCTC6403</b>	NZ_LR594046.1	2.2005	1965	39.5	Not available
<b>SD NCTC13759</b>	INSDC: UHFJ000000000.1	2.15094	1929	38.3	Not available
<b>SD FDAARGOS 654</b>	NZ_CP044102.1	2.25353	2045	39.1	Human
<b>SD SCDR-SD1</b>	NZ_CP033391.1	2.17914	1725	41	Human
<b><i>S. canis</i> B700072</b>	NZ_LR590625.1	2.10661	1867	39.7	Not available
<b><i>S. canis</i> NCTC12191</b>	NZ_LR134293.1	2.08474	1855	39.9	Not available
<b><i>S. canis</i> HL_100</b>	NZ_CP046521.1	2.17824	1952	39.7	Dog
<b><i>S. pyogenes</i> emm64.3</b>	NZ_CP035435.1	1.77977	1693	38.6	Human
<b><i>S. pyogenes</i> emm70</b>	NZ_CP035448.1	1.82647	1707	38.5	Human
<b><i>S. pyogenes</i> emm97.1</b>	NZ_CP035447.1	1.81209	1677	38.4	Human
<b><i>S. pyogenes</i> FDAARGOS_668</b>	NZ_CP044093.1	1.84135	1737	38.4	Human
<b><i>S. pyogenes</i> HKU360</b>	NZ_CP009612.1	1.94454	1832	38.5	Human
<b><i>S. pyogenes</i> JS12</b>	NZ_CP021640.1	1.81028	1632	38.5	Human
<b><i>S. pyogenes</i> NCTC10085</b>	NZ_LS483401.1	1.79527	1679	38.6	Human
<b><i>S. pyogenes</i> NCTC12052</b>	NZ_LS483352.1	1.85773	1791	38.5	Human
<b><i>S. pyogenes</i> NCTC12696</b>	NZ_LS483332.1	1.84505	1777	38.5	Human
<b><i>S. pyogenes</i> NCTC13736</b>	NZ_LS483414.1	1.91321	1814	38.6	Human
<b><i>S. pyogenes</i> NCTC13738</b>	NZ_LS483382.1	1.84734	1746	38.6	Human
<b><i>S. pyogenes</i> NCTC8322</b>	NZ_LS483520.1	1.82959	1746	38.5	Human
<b><i>S. pyogenes</i> SP1336</b>	NZ_CP031738.1	1.87883	1736	38.5	Human