

**S2 Table. List of the individual SNP genotypes for the cows included in the study.**

Cow ID	Farm ID	SELP-EXON13 rs211179622	SELP-EXON8 rs378218397	SELP-EXON6 rs137027551	SELP-EXON5 rs42312260	SELP-EXON4 rs110033243	SELL_EXON4 rs41803917	SELL-EXON3 rs109966956	SELE-EXON14 rs110045112
607	11	TT	GG	AG	AC	CT	CC	AG	CC
845	17	AT	GG	GG	CC	CT	CT	GG	CG
847	17	AT	GG		CC	CT		AG	CC
848	17	AT	GG	GG	CC	CC	CT	GG	CG
849	3	TT	GG	GG	CC	CC	CC	AA	CC
850	17	TT	AG	GG	AA	TT	CC	AG	CC
851	3	TT	GG	GG	AC	CT	CC	GG	CC
852	20	AA	GG	GG	CC	CC	TT	GG	CG
1342	5	TT	GG	AG	AA	TT	CC	AA	CC
1343	3	TT	GG	GG	AC	CT	CC	GG	CC
1344	3	AT	AG	AG	AC	CT	CT	AG	CG
1345	18	TT	AG	AG	AA	TT	CC	AA	CC
1347	21	TT	AG	AA	AA	TT	CC	AA	CC
1348	11	TT	AG	GG	AC	CT	CT	GG	CG
1349	3	TT	AG	AG	AA	TT	CC	AA	CC
1350	21	TT	AG		AA	TT	CC	AA	
1352	18	TT	GG	GG	CC	CC	CT	AG	CG
1353	5	AT	GG	GG	CC	CC	CT	AG	CG
1354	6	TT	GG	AA	AA	TT	CC	AA	CC
1355	3	TT	AG	GG	AA	TT	CC	AG	CC
1356	6	AT	GG	AG	AC	CT		AG	CG
1357	21	TT	GG	GG	AC	CT	CC	AG	CC
1360	6	AT	GG	GG	CC	CC	CT	AG	CG
1361	21	TT	GG	AG	AC	CT	CC	AA	CC

1362	3	TT	AG	AG	AC	CT	CC	AA	CC
1363	3	TT	AG	AG	AC	CT	CC	AA	CC
1699	15	AT	GG	GG	CC	CC	CT	AG	CG
1701	15	AT	GG		CC	CC	CT	AG	
1702	2	TT	GG	GG	CC	CC	CT	AG	CG
1703	2	TT	AG	AG	AC	CT	CC	AA	CC
1704	2	TT	GG	AG	AC	CT	CC	AA	CC
1706	10	TT	GG	GG	CC	CC	CT	GG	CG
1709	4								
1710	6	AA	GG	GG	CC	CC	TT	GG	GG
1712	4	AT	GG	GG	AC	CT	CT	GG	CG
1714	6	AT	GG	GG	CC	CC	CT	GG	CG
1715	6	AT	GG	GG	CC	CC	CT	AG	CG
1717	6	AT	AG	AG	AC	CT	CT	AG	CG
1720	16	AT	GG	GG	CC	CC	CT	AG	CG
1723	21	AT	AG	GG	AC	CT	CT	GG	CG
1725	16	AT	GG	GG	CC	CC	CT	AG	CG
1726	16	AT	GG		CC	CC	CT	AG	
1727	14	TT	GG		AA	TT	CC	AA	
1729	9	TT	GG		AC	CT	CC	AA	CC
1731	1	AT	AG	GG	AC	CT	CT	AG	CG
1732	11	TT	GG	AG	AC	CT	CC	AG	CC
1733	1	AT	GG	GG	CC	CC		GG	CG
1734	1	TT	GG		CC	CC	CC	AA	
1735	11	TT	AG		AA	TT	CC	GG	
1736	13	AT	AG	GG	AC	CT	CT	AG	
1738	19	TT	AG		AC	CT	CC	AA	CC
1739	19	TT	AG	AG	AC	CT	CC	AG	
1740	18	TT	GG	AG	AC	CT	CC	AG	CC
1744	20	AT	GG		AC	CC	CT	GG	CG

1745	20	TT	GG	AG	AC	CT	CT	AG	CG
1746	15	AT	AG	GG	CC	CC	CT	AG	
1748	15	TT	GG	GG	AC	CT	CC	AG	CC
1750	2	AT	AG	AG	AC	CT	CT	AG	CG
1751	2	TT		AA	AA	TT	CC	AA	CC
1753	6	AT	GG	GG	CC	CC	CT	AG	CG
1755	5	TT	GG	GG	CC	CC	CT	AG	CG
1757	4	AT	AG	GG	AC	CT	CC	AA	CC
1758	4	TT	AG	AG	AA	TT	CC	GG	CC
1760	4	TT	GG	GG	AC	CT	CC	AG	CC
1761	5	AT	GG	AG	AA	TT		AA	CC
1762	6	TT	GG	GG	AC	CT	CC	GG	CC
1763	6	TT	GG	AG	AA	TT	CT	GG	CG
1764	6	TT	GG	GG	AC	CT	CC	AG	CC
1765	5	TT	GG	AG	AA	TT	CC	AA	CC
1766	6	TT	AG	AA	AA	TT	CC	AA	CC
1767	17	TT	GG	GG	CC	CC	CT	AG	CG
1768	17	TT	GG		CC	CC	CT	AG	
1770	16	TT	GG	AG	AC	CT	CC	AG	CG
1772	21	TT	AG	GG	AC	CT	CC	AG	CC
1773	21	AT	GG	AG	AC	CT	CT	AG	CG
1776	14	TT	GG	AA	AA	TT	CC	AA	CC
1777	14	TT	GG	AA	AA	TT	CC	AA	CC
1781	11	AT	GG	GG		CT	CT	GG	CG
1782	3	AT	AG	AG	AC	CT	CT	AG	CG
1783	1	AT	GG		CC	CC	CT	GG	
1785	11	TT	GG	GG	CC	CC	CC	AG	CC
1786	3	AT	GG	AG	AC	CT	CT	AG	CG
1787	12	AT	AG	AG	AC	CT	CC	AG	CC
1789	19	TT	AG	AG	AC	CT	CC	AA	CC

1790	19	AT	AG	GG	AA	TT	CC	AG	CC
1791	19	TT	AG		AC	CT	CT	AG	
1792	19	TT	GG		AA	TT			
1796	15	TT	AG		AA	TT	CC	AA	
1798	15	TT	AG		AA	TT	CC	AA	
1799	2	TT	AG		AC	CT	CC	AG	
1800	2	AT		AG	AA	TT	CC	AA	CC
1801	2	AT	AG	AG	AC	CT	CT	AG	CG
1802	10	TT	AG	AG	AC	CT	CC	AA	CC
1804	5	TT	AG	AG	AC	CT	CC	AA	CC
1810	4	TT	GG	GG	CC	CC	CC	AG	CC
1811	5	AT	AG	AG	AA	TT	CC	AG	CC
1812	4	AT	GG	AG	AC	CT	CT	GG	CG
1813	5	AA	GG		AC	CT	TT	GG	CC
1816	16	TT	GG	GG	CC	CC	CC	AA	CC
1817	16	TT	GG	AG	AC	CT	CC	AA	CC
1819	14	TT	AG	AG	AC	CT	CC	AA	CC
1820	14	AT	GG	AG	AA	TT	CC	AG	CC
1821	14	TT	AG	AG	AC	CT	CC	AA	CC
1822	14	TT	AG	AG	AC	CT	CC	AA	CC
1824	11	TT	AG	AG	AC	CT	CC	AG	CC
1825	1	TT	GG	GG	AC	CT	CT	GG	CG
1826	1	TT	AG	GG	AC	CT	CC	GG	CC
1827	3	AT	GG	AG	CC	CC	CC	GG	CC
1828	13	AT	GG	GG	CC	CC	CT	GG	CG
1829	12	TT		AA	AA	TT	CC	AA	CC
1830	19				AA	TT	CT	AG	CG
1831	19	TT		AG	AC	CT	CT	AA	CG
1832	19	AT	GG		AC	CT	CT	AG	CG
1834	18	AT	GG	AG	AC	CT		AA	CC

1835	15	TT	GG	GG	CC	CC	CC	AA	CC
1837	15	TT	AG		AA	TT	CC	AA	
1838	2	TT	AG	AA	AA	TT	CC	AA	CC
1839	10	TT	AG	AG	AC	CT	CC	AA	CC
1840	5	AT	GG	GG	CC	CC	TT	GG	CG
1841	10	TT	GG		CC	CC	CC	AA	
1843	6	TT	GG	GG	AC	CT	CC	AG	CC
1845	5	AA	GG	GG	CC	CC	TT	GG	GG
1846	6	TT	GG	GG	CC	CC	CC	AA	CC
1847	4	AT	GG	GG	CC	CC	CT	GG	CG
1848	5	AT	GG	GG	CC	CC	CT	AG	CG
1849	4	AT	GG		CC	CC	CC	AG	
1850	4	TT	GG	AG	AA	TT	CC	AG	CC
1852	16	AT	GG	GG	CC	CC	CT	AG	CG
1853	21	TT	AG		AA	TT	CC	AG	
1854	21	AT	GG		CC	CC	CT	AG	
1855	14	AT	AG	AG	AC	CT	CT	AG	CG
1857	14	AT	GG	AG	AC	CT	CC	AA	CC
1861	3	AT	GG	AG	AC	CT	CT	AG	CG
1862	3	AT	AA	GG	AC	CT	CT	AG	CG
1863	3	TT	GG	AG	AA	TT	CC	AG	CC
1864	13	AT	GG	GG	CC	CC	TT	GG	
1865	13	TT	GG	GG	CC	CC	CC	GG	CC
1866	3	AT	AG		CC	CC		AG	CC
1867	13	TT	GG	AG	AC	CT	CC	AA	CC
1868	13	AT	GG	GG	AC	CT	CT	GG	CG
1869	12	TT	AG	AG	AC	CT	CT	AG	CG
1870	19	AT	AA	AG	AA	TT	CC	AA	CC
1871	19	AT	GG		CC	CC	CT	GG	CG
1874	18	AA	GG	GG	CC	CC	TT	GG	GG

1875	18	TT	GG	GG	CC	CC	CC	AA	CC
1879	2	TT	GG		CC	CC	CC	AG	CC
1880	2	TT	AG	AA	AA	TT	CC	AG	CC
1881	2	TT	GG		AA	TT	CC	AG	
1883	10	AT	GG		AC	CT	CT	GG	
1884	6	TT	GG	AA	AA	TT	CC	AA	CC
1885	4	AT	GG	GG	CC	CC	CT	GG	CG
1889	6	AT	AG	AG	AC	CT	CT	AG	CG
1890	4	AT	GG	GG	CC	CC	CC	AA	CC
1891	4	TT	GG	AG	AC	CT	CC	AG	CC
1893	4	AT	GG	GG	CC	CC	CT	AG	CG
1896	17	TT	GG	GG	CC	CC	CC	AA	CC
1898	21	AT	GG	GG	CC	CC	CT	AG	CG
1899	14	TT	GG	GG	CC	CC	CC	AA	CC
1900	14	TT	GG	AA	AA	TT	CC	AA	CC
1902	14	TT	AG	AA	AA	TT	CC	AA	CC
1903	14	TT	AG	AA	AA	TT	CC	AA	CC
1904	14	TT	GG	GG	CC	CC	CC	AG	CC
1907	1	TT	AG	AG	AA	TT	CC	AA	CC
1908	11	AT	GG	GG	AC	CT	CT	GG	CG
1909	11	AT	GG	GG	CC	CC	CT	GG	CG
1910	3	TT	GG	AG	AC	CT	CC	AG	CC
1911	13	TT	GG		CC	CC	CC	AG	CC
1912	12	TT	GG	GG	CC	CC	CC	AG	CC
1913	12	AT	AG	AA	AA	TT	CC	AA	CC
1914	12	TT	GG	GG	CC	CC	CC	AA	CC
1915	12	TT	AG		AC	CT	CC	AG	
1917	19	TT	GG		AC	CT	CC	AG	CG
1918	19	AT	GG	GG	CC	CC	CC	AG	CC
1919	18	TT	GG		AC	CT	CC	GG	

1922	20	AT	GG	GG	CC	CC	CT	AG	CG
1925	15	TT	GG	AG	AC	CT	CC	AG	CC
1928	2	TT		AA	AA	TT	CC	AG	CC
1929	2	AT	AG	AG	AC	CT	CT	AG	CG
1931	10	AT	AG		CC	CT	CC	AA	CC
1932	10	TT	AG		AC	CT	CC	AA	CC
1933	6	TT	GG	GG	AC	CT	CC	AG	CC
1935	5	AT	GG	AG	AC	CT	CT	AG	CG
1937	5	TT	GG	GG	AC	CT	CT	GG	CG
1938	6	TT	GG	AG	AC	CT	CC	AA	CC
1939	5	TT	GG	GG	CC	CC	CC	AG	CC
1940	6	AT	GG	GG	CC	CC	TT	AG	CG
1941	4	TT	GG	GG	CC	CC	CT	AG	CG
1942	4	AT	GG	GG	CC	CC	TT	GG	CG
1943	5	TT	GG		CC	CC	CT	AA	
1945	17	AA	GG	GG	CC	CC	CC	AA	CC
1946	17	TT	GG	GG	CC	CC	CC	AA	CC
1947	21	AT	GG		CC	CC	CT	GG	
1949	14	TT	GG		CC	CC		AG	
1952	1	TT	AG	AG	AC	CT	CC	AA	CC
1953	1	TT	GG	AG	AA	TT	CC	AG	CC
1954	3	TT	GG	GG	CC	CC	CC	AA	CC
1955	13	TT	GG		AC	CT			CC
1956	12	TT		GG	AC	CT	CC	GG	CC
1957	12	TT	GG	AG	AC	CT	CC	AG	CC
1958	1	TT	GG	GG	AC	CT	CT	AG	CG
1962	19	AT			AC	CT			CC
1963	19	TT	GG		AA	TT	CC	AA	CC
1966	15	TT	GG	GG	AC	CT	CC		CC
1967	15	TT	GG	AG	AC	CT	CC	AA	CC

1969	4	AT	GG		AC	CT	CT	GG	
1973	5	TT	GG	AG	AC	CT	CC	AA	
1974	4	TT	GG		CC	CC	CC	AA	
1975	4	AT	GG	AG	AC	CT	CT	AG	CG
1977	5	TT	GG	GG	CC	CC	CC	AG	CC
1978	6	AT	AG	AG	AA	TT	CC	AA	CC
1979	4	TT	GG	AG	AC	CT	CC	AA	CC
1980	17	TT	AA	AG	AA	TT	CC	AG	CC
1983	21	TT	AG	GG	AA	TT	CC	AG	CC
1985	14	TT	AG	AG	AC	CT	CT	AG	CG
1986	21	TT	AG		AA	TT		AG	
1987	14	TT	AG	AA	AA	TT	CC	AA	CC
1991	11	AT	GG	AG	AC	CT	CT	AG	CG
1992	11	AT	GG	GG	CC	CC	CT	GG	CG
1993	1	TT	AG		AC	CT	CT	AG	CG
1994	11	TT	GG	AG	AC	CT	CC		CC
1995	3	TT	AG	GG	CC	CC	CT	AG	CG
1996	1	TT	GG		AA	TT	CC	AG	
1998	11	TT	GG	GG	AA	TT	CC	GG	CC
1999	12	AT	GG		CC	CC	CT	GG	
2000	12	AT	GG	AA	AA	TT	CC	AA	CC
2001	1	TT	GG	GG	AC	CT	CT	AG	
2003	19	TT	GG	GG	CC	CC	TT	GG	GG
2004	19				AA	TT	CC	AG	CC
2005	19		GG		CC	CC	TT	AG	CG
2083	2	TT	GG	AG	AC	CT	CC	AA	
2087	16	AT	GG	GG	CC	CC	CT	GG	CG
2088	16	AT	AG	GG	AA	TT	CT	AG	CG
2089	21	AT	GG	GG	AC	CT	CC	AG	CG
2093	11	TT	AG	AG	AA	TT	CC	AG	CC

2095	1	AT	AG	AG	AC	CT	CC	AG	CG
2096	3	TT	GG	AG	AC	CT	CC	GG	CC
2097	13	AT	GG	GG	CC	CC	CT	AG	CG
2102	19	AT		AG	AC	CT	CT	AG	CG
2103	19	TT	AG		AC	CT	CC	AG	
2104	18	TT	AA	AG	AA	TT	CC	AA	CC
2107	17	AT	GG	GG	AC	CT	TT	GG	GG
2109	16	AT	AG		AC	CT	CT	AG	CG
2110	14	AT	GG		CC	CC	CT	AG	
2111	16	AT	GG	AG	AC	CT	CT	AG	CC
2113	14	AT	GG	GG	AC	CT	CT	GG	CG
2115	1	AT	AG	AG	AC	CT	CT	AG	CG
2116	1	AT	AG	AG	AC	CT	CT	AG	CG
2117	1	AT	AG		AA	TT	CC	AA	CC
2118	13	AT	AG	GG	AC	CT	CT	AG	CG
2119	13	TT		GG	AC	CT	CC	AA	
2120	12	TT		AG	AC	CT	CC	AG	CC
2121	12	AT	AG	AG	AC	CT	CC	AG	CC
2122	8	TT	AG	GG	AC	CT	CC	AA	CC
2125	18				AC	CT	CC	GG	CC
2126	18	TT	GG	AG	AC	CT	CC	GG	CC
2128	16	TT	AG	AG	AA	TT	CC	AA	CC
2130	16	AT	AG	GG	AC	CT	CT	AG	CC
2131	21	AT	GG	GG	CC	CC	TT	GG	GG
2132	16	AA	GG	GG	CC	CC	TT	GG	GG
2133	11	AT	AG	AG	AC	CT	CT	AG	CG
2134	11	AA	GG	AG	CC	CC	CT	AG	CG
2135	1	TT	GG	GG	AA	TT	CT	GG	CC
2136	3	AT	GG	AG	AC	CT	CT	AG	CG
2137	1	AT	GG		AC	CT		GG	CC

2138	13		GG		CC	CC	TT	GG	CG
2139	13	AT	AG	AG	AC	CT	CT	AG	CG
2140	13	TT	GG	AG	AC	CT	CC	AA	CC
2141	12	AT		AG	AC	CT	CC	AG	CC
2148	18	TT	GG	AG	AC	CT	CC	GG	CC
2150	4	TT	GG		AC	CT		AG	
2152	16	TT	AG		AA	TT	CC	AA	
2153	16	AT	AG	AG	AC	CT	CT	AG	CG
2154	21	AT	GG	GG	CC	CC	CT	AG	CG
2155	14	TT	GG	AG	AC	CT	CC	AA	CC
2156	14	TT	GG		AC	CT		GG	CG
2159	11	AT	GG	GG	CC	CC	CC	AG	CC
2161	3	AT	GG		CC	CC	TT	GG	
2162	1	TT	GG	AG	AC	CT	CC	AG	CC
2163	1	AT	GG		AC	CT	CT	GG	
2164	1	TT	GG	AG	AC	CT	CC	AG	CC
2165	3	TT	AG	AG	AC	CT	CT	AG	CG
2166	13	TT	GG		CC	CC		GG	
2167	13	TT	AG	AG	AA	TT	CC	AA	
2168	12	TT	GG	AG	AC	CT	CC	AA	CC
2169	1	AT	AG	GG	AC	CT	CT	AG	CG
2173	19	TT	GG	AG	AA	TT	CT	AG	CG
2174	18	TT	GG	AG	AC	CT	CC	GG	CC
2175	18	TT	GG	GG	CC	CC	CC	GG	CC
2177	4	TT	GG		CC	CC	CC	AA	
2178	21	TT	GG	AA	AA	TT	CC	AG	CC
2179	16	AA	GG	GG	CC	CC	TT	GG	CG
2180	16	AA	GG	AG	AC	CT	CT	AG	CG
2184	1	AT	AG	GG	AC	CT	CT	AG	CG
2185	1	AT	GG	AG	AC	CT	CT	AG	CG

2186	13	AT	GG	AG	AC	CT	CT	AG	CG
2187	13	AT	AG	AG	AC	CT	CT	AG	CG
2188	13	AT	GG	GG	CC	CC	CT	AG	CC
2189	13	TT	AG	AA	AA	TT	CC	AA	CC
2190	1	TT	GG	AA	AA	TT	CC	AA	CC
2191	12	AT	AG	AG	AC	CT	CT	AG	CG
2194	8	AT	GG	AG	AC	CT	CC		CG
2195	19	TT			AC	CT	CT	AG	CG
2196	18	AT	GG	AG	AC	CT	CT	GG	CG
2198	20	AA	GG		CC	CC	TT	GG	
2200	14	AT	GG	GG	AC	CT	CC	AA	
2201	21	AT	GG	GG	CC	CC	CT	GG	CG
2202	16	TT	AG	GG	AC	CT	CC	AG	CC
2205	11	TT	AG	AA	AA	TT	CC	AA	CC
2206	1	TT	AG		AA	TT	CC	AG	CC
2207	1	AT	AG	GG	AC	CT	CT	AG	CG
2209	3	AT	AG	GG	AC	CT	CT	AG	CG
2210	13	TT	AG	GG	AC	CT	CT	AG	
2211	13	TT	GG	GG	AC	CT	CC	GG	CG
2212	13	AT	GG	GG	CC	CC		GG	
2213	13	TT	GG	AG	AC	CT	CC	AA	
2214	12	TT	GG	AA	AA	TT	CC	AA	CC
2215	12	TT	GG	GG	AC	CT	CC	AG	CC
2219	19	TT	GG	AG	AC	CT	CT	AG	CG
2220	18	TT	GG		AC	CT	CT	GG	
2221	18	TT	AG	AA	AA	TT	CC	AA	CC
2222	18	TT	GG	AG	AC	CT	CC	AG	CC
2224	4	TT	GG	GG	CC	CC	CC	AA	CC
2225	5	TT	GG	AG	AC	CT	CC	AA	CC
2227	14	TT	GG	AG	AC	CT	CC	AA	CG

2228	14	TT	GG	AA	AA	TT	CC	AA	CC
2229	14	AT	GG		CC	CC	CT	AG	CG
2232	11	AT	AG	GG	CC	CC		AG	CC
2233	1	AT	AG	AG	AC	CT	CT	AG	CG
2234	3	TT	GG	GG	CC	CC	CC	GG	CC
2235	13	TT	GG	AG	AA	TT	CC	AG	CC
2236	13	AT	AG	AG	AA	TT	CC	AA	CC
2237	12	AT		AG	AC	CT	CC	AG	CC
2239	8	TT	AG	AG	CC	CT		AG	CG
2241	18	TT	GG	GG	CC	CC	CC	AG	CC
2242	18	AT	GG	AG	AC	CT		GG	CG
2250	13	AT	GG	GG	AC	CT	CT	GG	CG
2251	20	TT	GG		AA	TT	CC	AG	