



AGROTIS S.r.l.  
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LABORATORIO GENETICA E SERVIZI  
Via Bergamo 292, 26100 Cremona  
Tel. 0372.560828 | info-lgs@agrotis.it | http://www.lgscr.it



Accredited genetic  
laboratory  
Exp. 12/2022

### CERTIFICATO DI IDENTIFICAZIONE GENETICA/ GENETIC IDENTIFICATION CERTIFICATE

NOME SOGGETTO NAME	-----	SPECIE SPECIE	BOVINE	RAZZA BREED	ROMAGNOLA
MICROCHIP/MATRICOLA HERDBOOK N°/ID	IT039990059179	TATUAGGIO TATTOO	-----	DATA NASCITA DATE OF BIRTH	-----
ROI/LOI/LIR	-----	SESSO GENDER	M	GEMELLO MULTIPLE BIRTH	-----
PADRE SIRE	IT039990043290				
MADRE DAM	IT039990039815				
DIAGNOSI DIAGNOSIS	SIRE and DAM qualify				
<b>CLIENTE/CUSTOMER</b>	<b>ANABIC, SS 317 – km 52,450, 06078 San Martino in colle (PG)</b>				
RAPPORTO DI PROVA n. TEST REPORT n	23CA01050	DATA EMISSIONE DATE OF ISSUE	22/05/2023		
DATA RICEVIMENTO CAMPIONI DELIVERY DATE	09/05/2023	DATA INIZIO PROVA TEST START DATE	10/05/2023	DATA FINE PROVA TEST END DATE	22/05/2023
CODICE INTERNO LGS LGS SAMPLE ID	23BO26901/01	MATRICE DNA FROM	EARTAG		

<i>Metodo di prova: test method:</i>	Analisi molecolare tramite Illumina® beadchip/Molecular analysis with Illumina® beadchip
<i>Incertezza di misura: Uncertainty of measurement:</i>	
<i>Informazioni: Information:</i>	<i>La diagnosi del presente rapporto di prova è stata formulata tramite analisi del genotipo SNP attenendosi alle linee guida dell'International Society for Animal Genetics (ISAG) approvate alla conferenza di Cairns (Luglio 2012) e dell'International Committee for Animal Recording (ICAR). The diagnosis of the present test report has been made through SNP profile analysis following the guidelines of the International Society for Animal Genetics (ISAG) approved at Cairns conference (July, 2012) and by the International Committee for Animal Recording (ICAR).</i>
<i>Il prelievo ed il campionamento sono a carico del cliente / the customer is responsible for sampling</i>	
<i>Il presente rapporto riguarda soltanto i campioni sottoposti a prova e non può essere riprodotto in forma parziale, salvo approvazione scritta di LGS This report is relative to the analysed sample. Reproduction of partial copy of the document is not allowed without written authorization from LGS</i>	

LA RESPONSABILE DI LABORATORIO  
THE LAB MANAGER

Dr. Cecilia Fontana



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## GENOTIPO/GENOTYPE

Indice/Index	Nome Marker/Marker Name	AB Allele	TOP Allele
1	ARS-USMARC-Parent-AY761135-rs29003723	AA	AA
2	ARS-USMARC-Parent-AY776154-no-rs	BB	GG
3	ARS-USMARC-Parent-AY842472-rs29001941	BB	GG
4	ARS-USMARC-Parent-AY842473-rs29001956	AB	AG
5	ARS-USMARC-Parent-AY842474-rs29003226	BB	GG
6	ARS-USMARC-Parent-AY842475-rs29002127	BB	GG
7	ARS-USMARC-Parent-AY844963-rs17871338	AB	AG
8	ARS-USMARC-Parent-AY849381-rs29003287	AB	AG
9	ARS-USMARC-Parent-AY850194-no-rs	AB	AG
10	ARS-USMARC-Parent-AY851162-no-rs	AB	AG
11	ARS-USMARC-Parent-AY851163-rs17871661	AB	AG
12	ARS-USMARC-Parent-AY853302-no-rs	AA	AA
13	ARS-USMARC-Parent-AY853303-no-rs	AA	AA
14	ARS-USMARC-Parent-AY856094-rs17871190	AB	AG
15	ARS-USMARC-Parent-AY858890-rs29002256	AA	CC
16	ARS-USMARC-Parent-AY860426-no-rs	BB	CC
17	ARS-USMARC-Parent-AY863214-rs17871744	AA	AA
18	ARS-USMARC-Parent-AY914316-rs17871403	AB	AC
19	ARS-USMARC-Parent-AY916666-no-rs	AA	AA
20	ARS-USMARC-Parent-AY919868-rs29002211	BB	GG
21	ARS-USMARC-Parent-AY929334-no-rs	AB	AG
22	ARS-USMARC-Parent-AY937242-rs17872223	AA	AA
23	ARS-USMARC-Parent-AY939849-rs17870274	AA	AA
24	ARS-USMARC-Parent-AY941204-rs17872131	BB	GG
25	ARS-USMARC-Parent-AY943841-rs17871566	AB	AG
26	ARS-USMARC-Parent-DQ381152-rs29002408	AB	AT
27	ARS-USMARC-Parent-DQ381153-rs29012842	AA	AA
28	ARS-USMARC-Parent-DQ404149-no-rs	BB	GG
29	ARS-USMARC-Parent-DQ404150-rs29012530	BB	CC
30	ARS-USMARC-Parent-DQ404151-rs29019282	AB	AG
31	ARS-USMARC-Parent-DQ404152-rs29022245	AA	AA
32	ARS-USMARC-Parent-DQ404153-no-rs	AB	AG
33	ARS-USMARC-Parent-DQ435443-rs29010802	AB	AC
34	ARS-USMARC-Parent-DQ451555-rs29010795	AA	AA
35	ARS-USMARC-Parent-DQ468384-rs29003967	AB	AC
36	ARS-USMARC-Parent-DQ470475-no-rs	BB	TT
37	ARS-USMARC-Parent-DQ489377-rs29026932	AA	AA



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38	ARS-USMARC-Parent-DQ500958-no-rs	AA	AA
39	ARS-USMARC-Parent-DQ647186-rs29014143	AB	AG
40	ARS-USMARC-Parent-DQ647187-rs29010510	BB	GG
41	ARS-USMARC-Parent-DQ647189-rs29012226	AA	AA
42	ARS-USMARC-Parent-DQ647190-rs29013632	AB	AG
43	ARS-USMARC-Parent-DQ650635-rs29012174	BB	GG
44	ARS-USMARC-Parent-DQ650636-rs29024525	BB	GG
45	ARS-USMARC-Parent-DQ674265-rs29011266	AB	AG
46	ARS-USMARC-Parent-DQ786757-rs29019900	AA	AA
47	ARS-USMARC-Parent-DQ786758-rs29024430	BB	CC
48	ARS-USMARC-Parent-DQ786759-rs29026696	AB	AG
49	ARS-USMARC-Parent-DQ786761-rs29012840	AB	AG
50	ARS-USMARC-Parent-DQ786762-rs29010772	AB	AC
51	ARS-USMARC-Parent-DQ786763-rs29020472	AB	AT
52	ARS-USMARC-Parent-DQ786764-no-rs	AA	AA
53	ARS-USMARC-Parent-DQ786766-rs29012070	AA	AA
54	ARS-USMARC-Parent-DQ789028-rs29017713	AA	AA
55	ARS-USMARC-Parent-DQ837643-rs29018818	BB	GG
56	ARS-USMARC-Parent-DQ837644-rs29010468	BB	CC
57	ARS-USMARC-Parent-DQ837645-rs29015870	AA	AA
58	ARS-USMARC-Parent-DQ839235-rs29012691	BB	CC
59	ARS-USMARC-Parent-DQ846688-rs29023691	AB	AG
60	ARS-USMARC-Parent-DQ846690-no-rs	AB	AG
61	ARS-USMARC-Parent-DQ846691-rs29019814	AB	AG
62	ARS-USMARC-Parent-DQ846692-rs29010281	AA	AA
63	ARS-USMARC-Parent-DQ846693-rs29017621	AA	AA
64	ARS-USMARC-Parent-DQ866817-no-rs	BB	GG
65	ARS-USMARC-Parent-DQ866818-rs29011701	AA	AA
66	ARS-USMARC-Parent-DQ888309-rs29013741	AB	AC
67	ARS-USMARC-Parent-DQ888310-rs29012422	BB	CC
68	ARS-USMARC-Parent-DQ888311-rs29017313	AB	AC
69	ARS-USMARC-Parent-DQ888313-no-rs	AA	AA
70	ARS-USMARC-Parent-DQ916057-rs29009979	AB	AT
71	ARS-USMARC-Parent-DQ916058-rs29016146	BB	GG
72	ARS-USMARC-Parent-DQ916059-rs29009907	BB	GG
73	ARS-USMARC-Parent-DQ984825-rs29012457	AB	AG
74	ARS-USMARC-Parent-DQ984826-rs29027559	BB	TT
75	ARS-USMARC-Parent-DQ984827-rs29012019	AA	AA
76	ARS-USMARC-Parent-DQ990832-rs29015065	AA	AA
77	ARS-USMARC-Parent-DQ990833-rs29010147	AA	AA
78	ARS-USMARC-Parent-DQ990834-rs29013727	BB	GG
79	ARS-USMARC-Parent-DQ995976-no-rs	AA	AA
80	ARS-USMARC-Parent-DQ995977-rs29020834	AB	AG
81	ARS-USMARC-Parent-EF026084-rs29025380	AB	AG
82	ARS-USMARC-Parent-EF026086-rs29013660	BB	GG
83	ARS-USMARC-Parent-EF026087-rs29011643	BB	GG
84	ARS-USMARC-Parent-EF028073-rs29014953	AA	AA



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85	ARS-USMARC-Parent-EF034080-rs29024749	AB	AG
86	ARS-USMARC-Parent-EF034081-rs29009668	AB	AT
87	ARS-USMARC-Parent-EF034082-rs29013532	BB	GG
88	ARS-USMARC-Parent-EF034083-rs29018286	BB	CC
89	ARS-USMARC-Parent-EF034084-rs29016185	BB	GG
90	ARS-USMARC-Parent-EF034085-rs29025677	AA	AA
91	ARS-USMARC-Parent-EF034086-no-rs	AA	AA
92	ARS-USMARC-Parent-EF034087-no-rs	BB	GG
93	ARS-USMARC-Parent-EF042090-no-rs	AA	AA
94	ARS-USMARC-Parent-EF042091-rs29014974	BB	GG
95	ARS-USMARC-Parent-EF093509-rs29015170	AB	AT
96	ARS-USMARC-Parent-EF093511-rs29012316	AB	AC
97	ARS-USMARC-Parent-EF093512-rs29013546	AB	CG
98	ARS-USMARC-Parent-EF141102-rs29015783	AB	AG
99	ARS-USMARC-Parent-EF150946-rs29023666	AA	AA
100	ARS-USMARC-Parent-EF164803-rs29011141	BB	GG
101	ARS-BFGL-BAC-19454	AB	AG
102	ARS-BFGL-BAC-27364	AB	AC
103	ARS-BFGL-BAC-35552	AA	AA
104	ARS-BFGL-NGS-10035	BB	GG
105	ARS-BFGL-NGS-101456	AA	AA
106	ARS-BFGL-NGS-102169	AA	AA
107	ARS-BFGL-NGS-106015	BB	GG
108	ARS-BFGL-NGS-111053	BB	GG
109	ARS-BFGL-NGS-111076	AB	AG
110	ARS-BFGL-NGS-111114	BB	CC
111	ARS-BFGL-NGS-112094	AB	AG
112	ARS-BFGL-NGS-112325	AB	AG
113	ARS-BFGL-NGS-11383	AA	AA
114	ARS-BFGL-NGS-114006	AB	AG
115	ARS-BFGL-NGS-115514	AA	AA
116	ARS-BFGL-NGS-117319	AB	AG
117	ARS-BFGL-NGS-117322	AA	AA
118	ARS-BFGL-NGS-118319	BB	CC
119	ARS-BFGL-NGS-118340	AB	AC
120	ARS-BFGL-NGS-119662	AB	AG
121	ARS-BFGL-NGS-14740	AA	AA
122	ARS-BFGL-NGS-15506	AA	AA
123	ARS-BFGL-NGS-15731	AA	AA
124	ARS-BFGL-NGS-24419	BB	GG
125	ARS-BFGL-NGS-26517	AB	AG
126	ARS-BFGL-NGS-27577	AA	AA
127	ARS-BFGL-NGS-31640	AB	AG
128	ARS-BFGL-NGS-31807	AA	AA
129	ARS-BFGL-NGS-36513	BB	GG
130	ARS-BFGL-NGS-38423	BB	GG
131	ARS-BFGL-NGS-38620	BB	GG



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132	ARS-BFGL-NGS-39978	AA	AA
133	ARS-BFGL-NGS-42283	AB	AG
134	ARS-BFGL-NGS-42505	AA	AA
135	ARS-BFGL-NGS-55943	AB	AG
136	ARS-BFGL-NGS-57711	BB	GG
137	ARS-BFGL-NGS-58613	AA	AA
138	ARS-BFGL-NGS-67146	AB	AG
139	ARS-BFGL-NGS-70946	BB	CC
140	ARS-BFGL-NGS-72471	AB	AC
141	ARS-BFGL-NGS-76191	AA	AA
142	ARS-BFGL-NGS-76330	AA	AA
143	ARS-BFGL-NGS-86662	BB	CC
144	ARS-BFGL-NGS-93119	AB	AG
145	ARS-BFGL-NGS-96125	AA	AA
146	ARS-BFGL-NGS-99210	AA	AA
147	ARS-USMARC-569	BB	GG
148	ARS-USMARC-Parent-AY841151-rs29003466	AA	AA
149	ARS-USMARC-Parent-DQ786765-rs29009858	AB	AC
150	ARS-USMARC-Parent-EF026085-rs29021607	AA	AA
151	ARS-USMARC-Parent-EF089234-rs29020870	AA	AA
153	BTA-11701-rs29017459	AB	AG
154	BTA-30857-no-rs	BB	GG
155	BTA-37062-no-rs	AB	AC
156	BTA-73768-no-rs	AB	AG
157	BTA-92021-no-rs	BB	TT
158	BTB-00188171	BB	GG
159	BTB-00394801	BB	CC
160	BTB-00420215	BB	CC
161	BTB-00818821	AB	AG
162	BTB-01057979	AA	AA
163	BTB-01285245	AB	AG
164	BTB-01371672	AB	AG
165	BTB-01416427	AB	AG
166	BTB-01478115	AA	AA
167	BTB-01902778	AB	AG
168	BTB-01980499	AA	AA
169	Hapmap24215-BTA-163266	BB	CC
170	Hapmap31098-BTA-136127	AB	AG
171	Hapmap34424-BES10_Contig566_926	AB	AG
172	Hapmap35535-SCAFFOLD86180_8791	AA	AA
173	Hapmap36588-SCAFFOLD90561_9460	BB	GG
174	Hapmap39425-BTA-70290	AB	AC
175	Hapmap39461-BTA-109898	AA	AA
176	Hapmap40148-BTA-92999	AB	AC
177	Hapmap40729-BTA-40319	AB	AG
178	Hapmap41591-BTA-59790	BB	GG
179	Hapmap42648-BTA-71195	BB	GG



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180	Hapmap43057-BTA-80741	AA	AA
181	Hapmap43142-BTA-107561	BB	GG
182	Hapmap43792-BTA-122725	BB	GG
183	Hapmap43953-BTA-83292	BB	GG
184	Hapmap46550-BTA-103548	AB	AT
185	Hapmap46653-BTA-47447	AA	AA
186	Hapmap47281-BTA-40051	AB	AG
187	Hapmap49452-BTA-112834	AB	AG
188	Hapmap50598-BTA-122724	AB	AG
189	Hapmap51227-BTA-41809	AB	AG
190	Hapmap51527-BTA-97415	AB	AG
191	Hapmap51908-BTA-63031	BB	GG
192	Hapmap52240-rs29013844	AA	AA
193	Hapmap54020-rs29023153	AB	AG
194	Hapmap54313-rs29012632	AA	AA
195	Hapmap54547-rs29012198	AA	AA
196	Hapmap55441-rs29010990	BB	GG
197	Hapmap59876-rs29018046	AB	AG
198	Hapmap60017-rs29023471	AA	AA
199	UA-IFASA-5034	BB	GG
200	UA-IFASA-6532	AA	AA