

**Title: Genomic amplification of the caprine *EDNRA* locus might lead to a dose dependent loss of pigmentation**

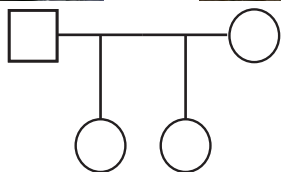
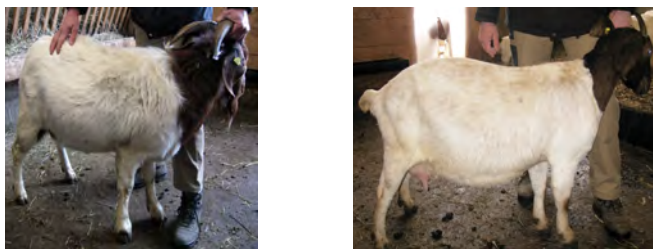
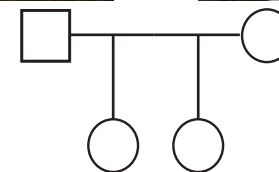
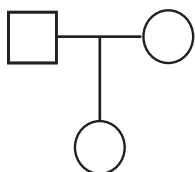
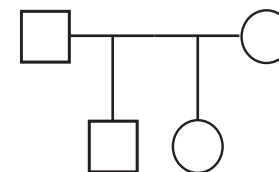
Authors: Fiona Menzi, Irene Keller, Irene Reber, Julia Beck, Bertram Brenig, Ekkehard Schütz, Tosso Leeb, Cord Drögemüller

### **Supplementary information**

PDF file

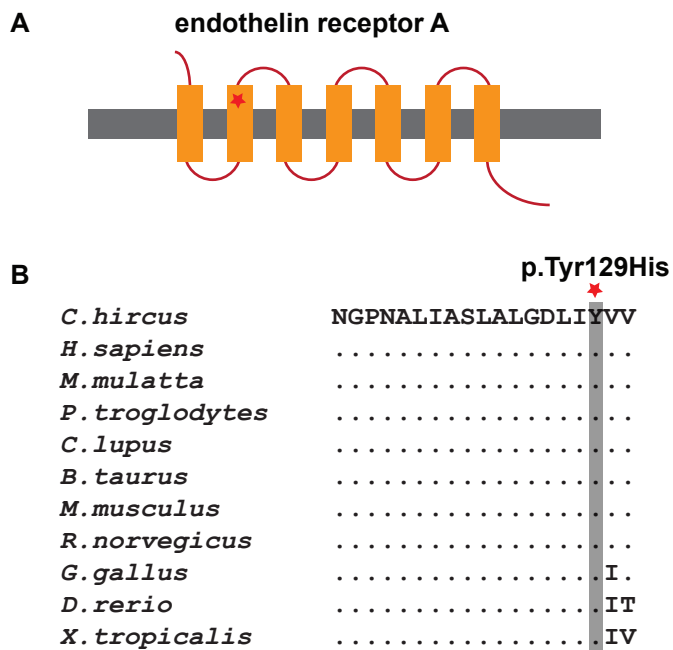
1. Additional\_Information.PDF

Supplementary Figures 1-2 and Supplementary Tables 1-2

**A****B****C****D**

**Suppl. Fig. 1 Examples of coat color inheritance in Boer goats.**

(A+B) Note the occurrence of solid red colored lambs, lambs with red spots in the white area of the body, and traditional colored lambs born from two traditional colored parents. (C+D) Note the occurrence of lambs with red spots in the white area of the body, and traditional colored lambs born from matings of solid red colored and traditional colored parents.



Suppl. Fig. 2 **Multispecies protein sequence alignment of EDNRA.**  
 (A) The protein consists of seven transmembrane domains (displayed in orange).  
 The p.Tyr129His mutation is indicated by a red star. (B) Note the high  
 conservation of the tyrosine at position 129 in all EDNRA homologs..

**Suppl. Tab. 1 Ten best associated SNP markers for coat color differences in Boer goats.**

Eight SNPs (of which seven are on chromosome 17) showed a genome-wide significant association (threshold indicated by a red line).

<b>rs number</b>	<b>SNP</b>	<b>chr</b>	<b>position</b>	<b>A1</b>	<b>A2</b>	<b>N</b>	<b>effB</b>	<b>se_effB</b>	<b>chi2.1df</b>	<b>P1df</b>	<b>Pc1df</b>
rs268287000	snp55406-scaffold858-1197053	17	10'577'664	G	A	187	-0.4691956	0.05669374	68.49165	1.274163E-16	2.079603E-15
rs268264927	snp32749-scaffold379-151202	17	11'926'018	A	G	187	-0.3477676	0.04729820	54.06162	1.942992E-13	1.775484E-12
rs268286979	snp55385-scaffold858-292727	17	11'481'990	G	A	187	-0.3308322	0.04760075	48.30453	3.649075E-12	2.645489E-11
rs268245303	snp12503-scaffold1479-728936	17	8'698'303	T	C	187	-0.2188954	0.03735236	34.34292	4.620780E-09	1.910617E-08
rs268286973	snp55379-scaffold858-66034	17	11'708'683	A	G	183	-0.2105514	0.03665209	33.00037	9.214127E-09	3.609544E-08
rs268286576	snp54969-scaffold840-1593888	29	16'642'349	C	T	187	-0.4774763	0.09023900	27.99722	1.214896E-07	3.891218E-07
rs268287011	snp55417-scaffold858-1731348	17	10'043'369	C	T	187	-0.3259177	0.06211019	27.53532	1.542518E-07	4.849542E-07
rs268245299	snp12499-scaffold1479-571823	17	8'541'190	A	G	187	-0.2357979	0.04585936	26.43771	2.721753E-07	8.187017E-07
rs268234705	snp1616-scaffold1046-857683	19	15'060'421	A	G	185	-0.3323220	0.06569107	25.59208	4.217672E-07	1.226198E-06
rs268286982	snp55388-scaffold858-438489	17	11'336'228	A	G	187	-0.1665744	0.03339274	24.88356	6.089965E-07	1.720719E-06

















11703468	A	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11705778	A	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11737463	G	T	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11740330	C	T	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11792289	T	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11792419	T	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11793235	C	T	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11795248	A	C	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11754362	G	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11754742	A	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11754898	AG	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11705195	G	GT	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11755534	T	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11759276	G	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11757498	A	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11802165	G	GT	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11802688	T	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11804205	A	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11808752	A	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11809466	A	T	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11811384	G	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11813564	T	T	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11816924	C	T	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11820590	C	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(SLC10A7)(ma184825)
11861143	A	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTERGENIC(MODIFIER)
11902395	G	G	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTERGENIC(MODIFIER)
11896505	G	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTRON(MODIFIER)(LOC102175607)(ma184871)
11928504	G	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTERGENIC(MODIFIER)
11972462	G	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTERGENIC(MODIFIER)
11874523	T	C	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTERGENIC(MODIFIER)
11868541	C	A	0/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	INTERGENIC(MODIFIER)