

A result is not a diagnosis. These markers report genotype and association, not disease. This is not a certified regulatory test.

Platform error rate. Illumina-based SNP testing carries approximately a 0.1% miscall rate.

✓ **marks a lab-validated assay.** Markers without it match published positions but are not fully validated: probe performance can vary, so those results are for information only.

Clear means clear of what was tested. Many conditions have a different cause in a different breed.

Resistance is not immunity. It lowers the odds; it does not remove them.

Breed matters. Many of these variants were found in one breed and may not segregate in yours.

RESISTANCE

Scrapie Status (NSEP)	Combines codons 136, 154 and 171 into an NSP type: 1 is the most resistant to classical scrapie, 5 the least. Codon 141 sits outside this scheme and affects atypical (Nor98) scrapie only. Four letters = codons 136, 141, 154, 171. ALRR is the most resistant haplotype, VLRQ the least.
└ Scrapie Codon 136	A confers resistance to classical scrapie; V confers none and carries VRQ, the highest-risk haplotype. A: Resistant · V: Highest risk
└ Scrapie Codon 154	H gives some resistance to classical scrapie but raises the risk of atypical (Nor98). R is neutral for classical and lower-risk for atypical. Codon 171 decides classical resistance. R: No classical effect, lower atypical risk · H: Some classical resistance, higher atypical risk
└ Scrapie Codon 171 ✓	The main driver of classical scrapie resistance. R gives strong resistance, H partial, Q none. K confers resistance similar to R , but regulators score it as Q . R: Strong · K: Strong (scored as Q) · H: Partial · Q: None
Maedi Visna (OPP)	Resistance needs two protective haplotypes, and only 1 , 4 and 6 count — 1,1 / 1,4 / 4,4 / 1,6 / 4,6 / 6,6 . A single copy of any other haplotype removes all resistance, whatever the other copy is. Resistance means far less likely to pick the virus up on exposure; it is not immunity. 1, 4, 6: Protective · 2, 3: Not protective · 9: Risk unmeasured · *: Presumed, unconfirmed by the other codons
└ TMEM154 E35K	K is the resistant allele and two copies are needed. K: Resistant · E: Not resistant on its own
└ TMEM154 N70I	Separates haplotype 2 from haplotype 3 . Neither confers resistance. I: Haplotype 2 · N: Haplotype 1 or 3

PERFORMANCE

Myostatin (Texel)	Increases muscle expression and leanness. One copy expresses, two copies increase expression. N: Normal · M: Muscling variant
Yellow Fat (BCO2)	Two copies give yellow carcass fat on carotenoid-rich feed, with no welfare effect. A different variant causes this in the Spælsau breed. N: Normal · Y: Yellow fat

FECUNDITY

Throughout this block N is normal and F is the fecundity variant named in the row.	
Booroola (BMPR1B)	Each copy adds roughly 1.6 ovulations and both copies stay fertile. Litter size rises less than ovulation does.
Embrapa FecG (GDF9)	Raises ovulation rate and prolificacy; two copies stay fertile.
Galway (BMP15) Inverdale (BMP15)	One copy raises ovulation rate; two may leave the ewe sterile. X-linked, so a ram has one copy and reads as homozygous.
High Fertility FecG (GDF9)	One copy greatly raises ovulation; two leave the ewe sterile.
Norwegian White Sheep (GDF9)	Two copies increase lambcrop size.
Vacaria FecG (GDF9)	One copy raises litter size. Whether two copies sterilize is not firmly established.

RECESSIVE CONDITIONS

Every marker here is a recessive condition (one exception, flagged in its row). The normal allele is always **N**; the other letter is shown on its row.
No copies — Clear.
One copy — Carrier. Not usually harmful.
Two copies — Affected. The animal has the condition described.

Microphthalmia (PITX3) Lambs born blind, with tiny or missing eyes.
Texel | **N**: Normal · **M**: Microphthalmia

The raw genotypes behind this report were produced by GenomNZ. Allele independently performs sex / parent verification and translates A/B allele calls into genotype interpretations, none of which is reviewed or endorsed by GenomNZ.

Disclaimer. Allele has taken reasonable care in that work but does not warrant this report free of error or omission, and accepts no responsibility for any decision made in reliance on it unless separately agreed in writing. Laboratory results describe only the material actually received and tested. Neither party has verified the identity, parentage, breed or history of any animal as supplied by the submitter, and neither is responsible for the accuracy of that information. A result is a genotype and its published association — not a diagnosis, not a guarantee of how an animal will perform, and not a certification by any government agency. To the fullest extent permitted by law, Allele and the laboratory each exclude all liability arising out of this report, whether in contract, tort (including negligence), equity, statute or otherwise.