

Sheep-FecB Panel

The GenoPrep® Sheep-FecB Panel employs the TaqMan probe method to rapidly and comprehensively identify individuals carrying FecB dominant genotypes in the sheep population, thus assisting ranches with early selection of the highly productive breeding stock. This effectively enhances population reproductive efficiency, accelerates genetic improvement in sheep's lambing number, lambing rate, and other traits, thereby facilitating continuous optimization of the population.

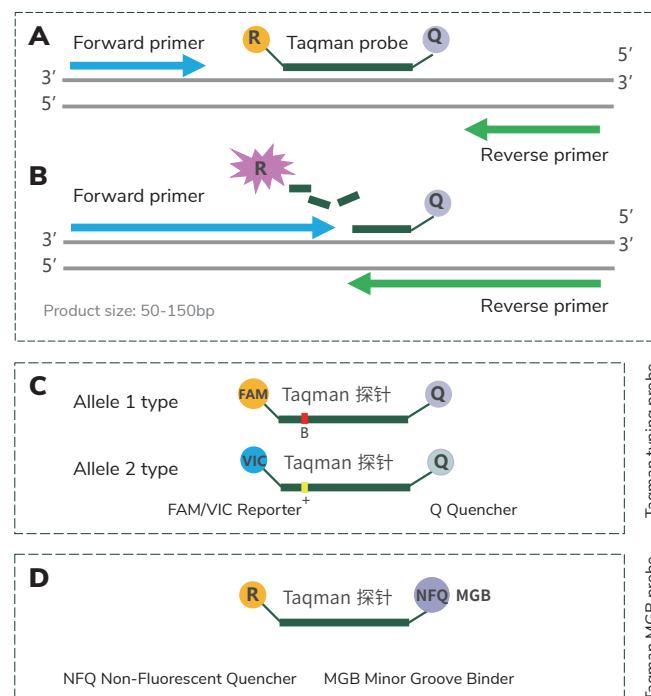
Product Highlight

- Easy to operate and short detection period;
- High detection specificity and sensitivity;
- High-throughput automated platform and nucleic acid extraction instrument.
It can realize large-scale screening, reduce costs and improve efficiency;
- Provide FecB marker-assisted breeding benefit analysis;
- Early selection of highly productive breeding stock can be carried out to improve breeding efficiency and rapidly enhance the lambing capacity of the group in a short period of time.

Distribution of FecB genes in different sheep populations

Breeds	Sample numbers	Allele frequency		Genotype frequency			Reference
		B	“+”	BB	B	B+	
Hu sheep	161	0.904	0.096	0.832	0.143	0.025	4
Wadi sheep	98	0.638	0.362	0.378	0.520	0.102	
Aletai sheep	98	0.168	0.832	0.010	0.316	0.674	
Small-tailed Han sheep	1851	0.560	0.440	0.310	0.200	0.490	
Bamei mutton sheep	1397	0.610	0.390	0.560	0.110	0.330	11
Zhaowuda Sheep	506	0.010	0.990	0.000	0.980	0.020	
Safuke sheep	1091	0.950	0.050	0.900	0.010	0.090	
Tan sheep	373	0.070	0.930	0.010	0.870	0.120	
Luzhong sheep	2292	0.382	0.618	0.110	0.330	0.560	9
		0.456	0.544	0.200	0.280	0.520	
		0.500	0.500	0.220	0.220	0.560	
Hu sheep	35	0.920	0.080	0.830	0.170	0.000	12
Duhu F1	35	0.430	0.570	0.000	0.860	0.140	
Duhu F2	35	0.190	0.810	0.000	0.370	0.630	
Du Han F1	23	-	-	0.044	0.174	0.783	13
Du Han F2	71	-	-	0.014	0.578	0.409	
Du Han F3	47	-	-	0.021	0.809	0.170	
Black-headed Dorper sheep	20	-	-	0.000	0.000	1.000	
Small-tailed Han sheep	39	-	-	0.308	0.077	0.615	

Taqman probe experimental principle



Service Process

Sample collection

Sample Receipt: Tissue, Blood
Provide supporting tissue sampling tubes and vacuum blood collection tubes free of charge

Sample delivery

Send the collected samples to Molbreeding Biotech Co., Ltd's Laboratory for testing

Detection and analysis

Sample extraction and QC
Detection using The GenoPrep® Sheep-FecB Panel Kit
Data analysis

Report issuance

Issue data analysis reports
One-on-one interpretation of "Data Analysis Report"
FecB marker-assisted breeding benefit analysis

The distribution of 1K markers across the genome

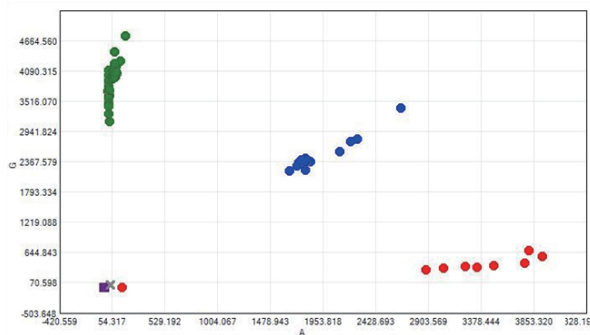


Figure 1 FecB genotyping results

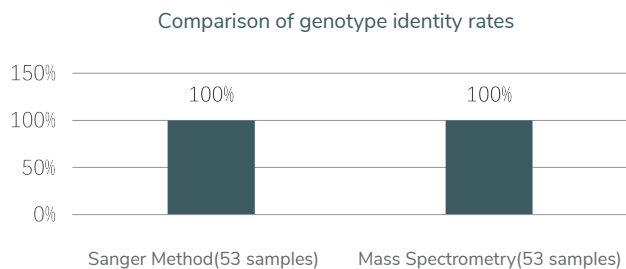


Figure 2 Comparison of FecB gene detection results with those of other genotyping platforms

ID	Sample name	Genotype	<i>FecB</i> genotype
NY00001	1	AA	++
NY00002	2	AA	++
NY00003	3	GA	B+
NY00004	4	GA	B+
NY00005	5	GG	BB

Examples of *FecB* gene test results

