

***PRAMEY*: A Bovid-Specific Y-Chromosome Multicopy Gene Is Highly Related to Postnatal Testicular Growth in Hu Sheep**

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Supplementary Material

Supplementary Tables and Figures

Supplementary Tables

Supplement Table S1. The pairwise comparisons of the median copy number of *PRAMEY* among eight sheep breeds

	DP	EF	HS	SK	SMM	TS	TL	WSK
DP	—							
EF	nsd	—						
HS	**	nsd	—					
SK	nsd	nsd	nsd	—				
SMM	nsd	nsd	nsd	nsd	—			
TS	**	nsd	nsd	nsd	nsd	—		
TL	nsd	nsd	nsd	nsd	nsd	nsd	—	
WSK	nsd	nsd	**	nsd	nsd	*	nsd	—

DP, Dorper; EF, East Friesian; HS, Hu sheep; SK, Suffolk; SMM, South African Mutton Merino; TS, Tan sheep; TL, Texel; WSK, White Suffolk; nsd, no significant difference; * $P < 0.05$; ** $P < 0.01$.

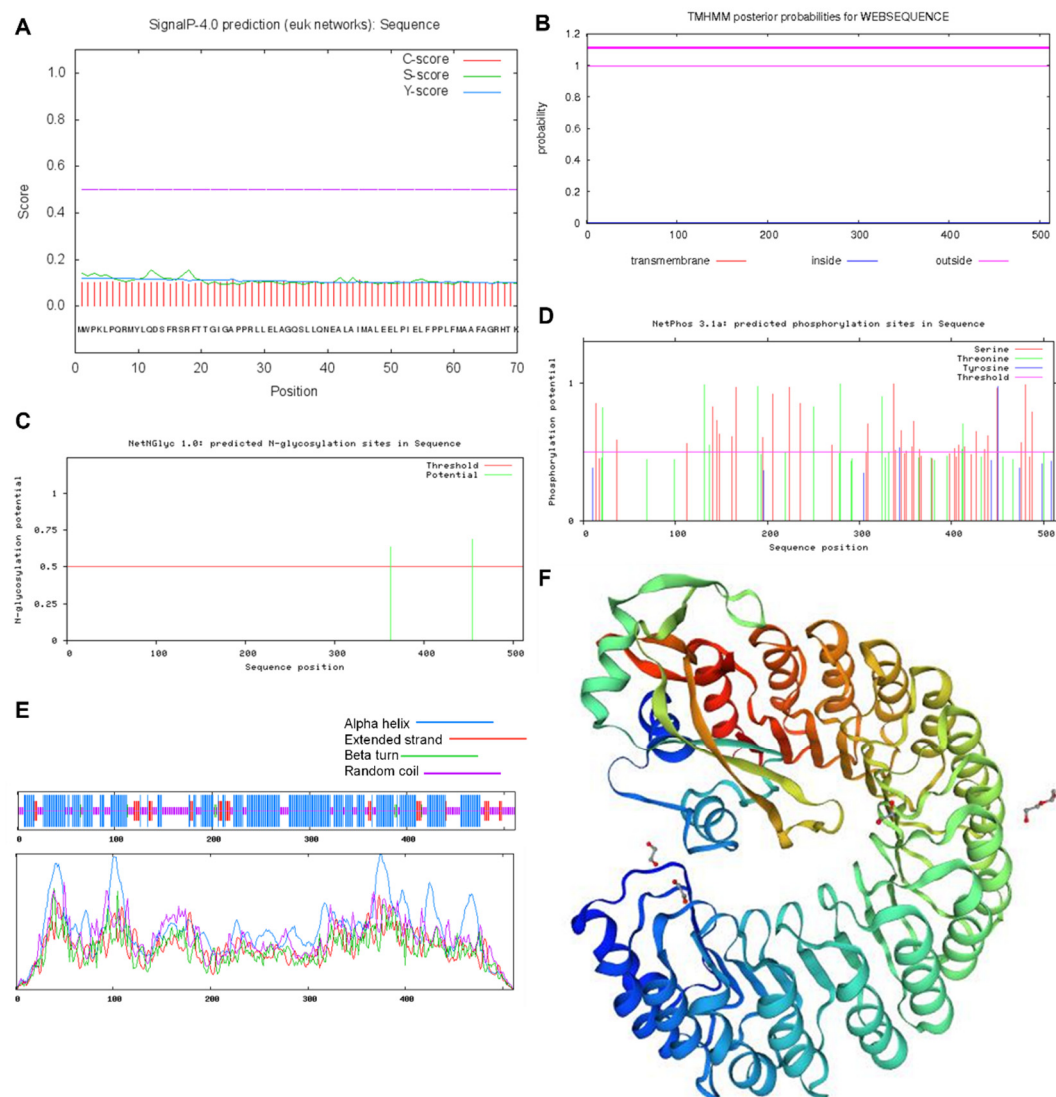
Supplementary Figures

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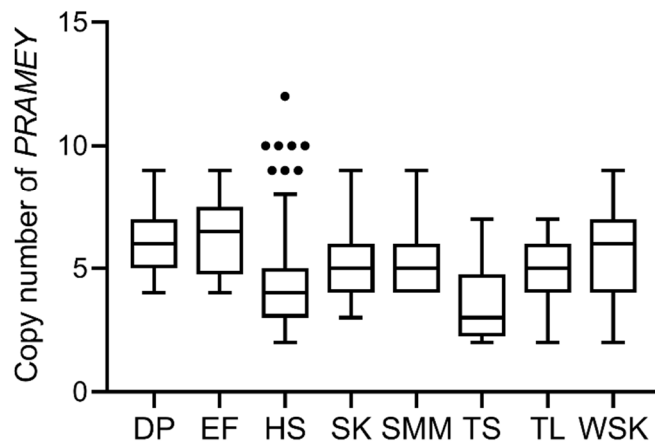
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144  gcaaaaggaaaaactgaattgtatttggcttcaaatgaggtcccatcagaaatctgtctgtctgaacgtgaacatttgggtgattttg
234  atgtggcccaaaactcccacaaacgaatgtaccttcaggactcgttccggagtaggttcacgacgggcatcggggccccaccagactcctg
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594  aagctgcagggtgctggacttacgcccgaacacccatgaggacttctggaccctgtggtctggcatcaaggctagcgtttgctcactgctg
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774  gtcgacctgtgcctcaaggaggacacccctggatgagacactcagctacctgctgaagaaggccaaacagaggaggagcctgctgcacctg
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1314  gtcaacctgaccagcctcagcttggaaacctctgcagggtcctgatcgagtggaacctcggccacacctacaggacctagacctaaatgagtc
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G I M D T Q F S A L L P S L S C C S Q L T T F S F C G N P I
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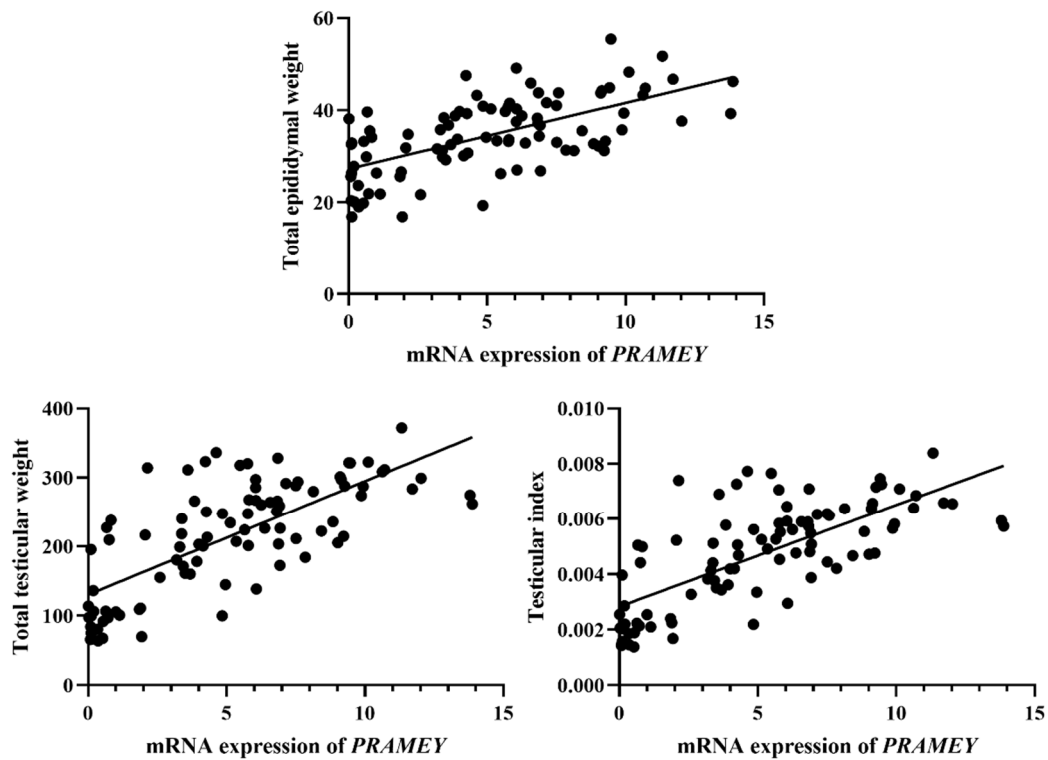
Supplementary Figure S1. The complete cDNA nucleotide sequence and deduced amino acid sequence of ovine *PRAMEY*.



Supplementary Figure S2. The bioinformatics analysis of the predicted *PRAMEY* protein. (A) *PRAMEY* had no signal peptide site. (B) *PRAMEY* had no predictable transmembrane region. (C) *PRAMEY* protein had 2 N-glycosylation sites. (D) *PRAMEY* protein also had 31 N-glycosylation sites. (E) Secondary structures of ovine *PRAMEY* protein. (F) Tertiary structures of ovine *PRAMEY* protein.



Supplementary Figure S3. Boxplot analysis of copy number of the *PRAMEY* among eight sheep breeds. The eight outliers in Hu sheep population are indicated by a solid circle. The x-axis represents the different sheep breeds. DP, Dorper; EF, East Friesian; HS, Hu sheep; SK, Suffolk; SMM, South African Mutton Merino; TS, Tan sheep; TL, Texel; WSK, White Suffolk.



Supplementary Figure S4. Scatter diagram reflecting the correlations between mRNA expression of *PRAMEY* and testicular parameters. The *PRAMEY* expression was positively associated with total epididymal weight (TEW: $r = 0.865$, $P < 0.0001$), total testicular weight (TTW: $r = 0.766$, $P < 0.0001$), and testicular index (TI: $r = 0.676$, $P < 0.0001$). Each black dot represents one individual.