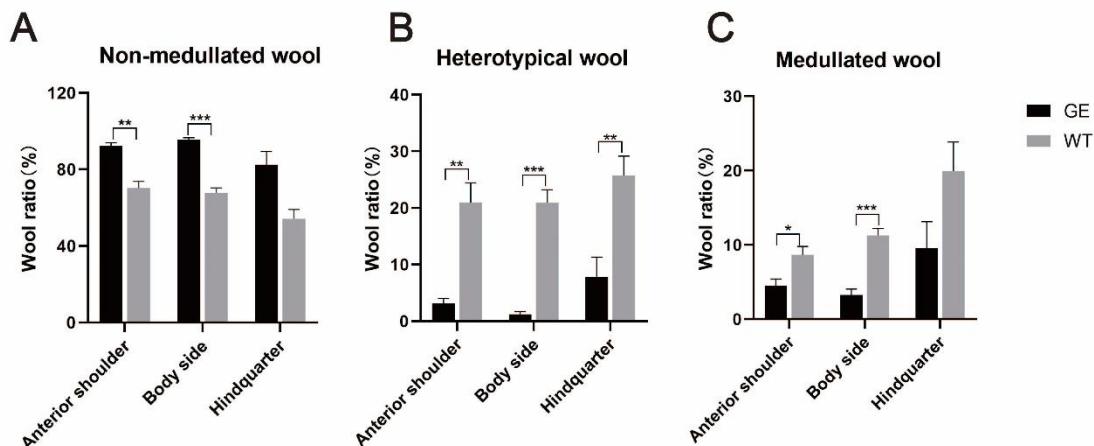


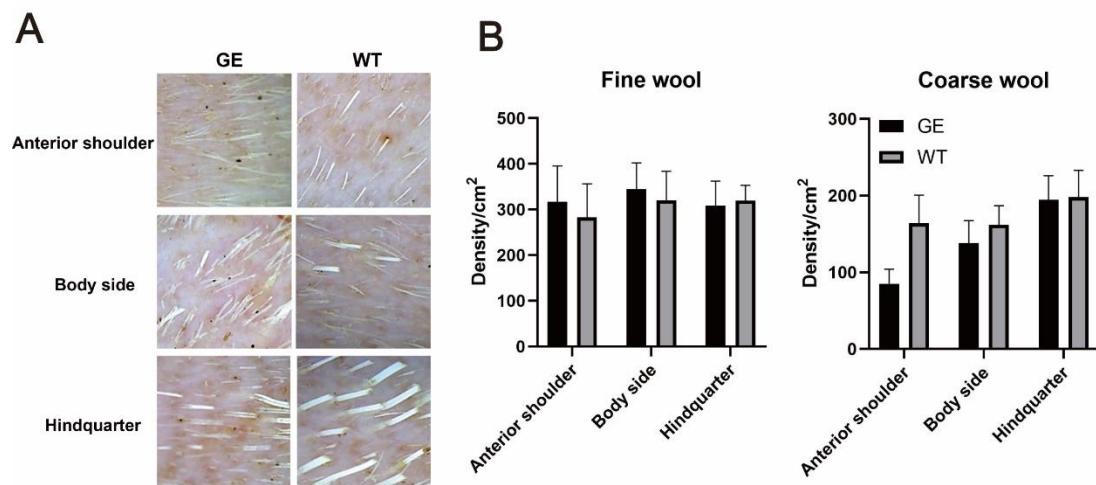
**Table S1 Primers for qPCR**

Genes	Accession	Primer sequence (5'-3')	Product size (bp)	T <sub>m</sub> (°C)
<i>FGF5-1</i>	NM_001246263.2	Forward: TGTGTCTCAGGGGATTGTAGG Reverse: GGC GGAGGCATAGGTATTATAG	157	60
<i>FGF5-2</i>	NM_001246263.2	Forward: CACGTCTCTACCCACTTCTG Reverse: TTAGGACTTCTCCGAGGTGC	143	60
<i>FGFR1</i>	XM_015104616.1	Forward: CAAACCAAACCGTATGCCCG Reverse: ACCTTGAGCCTCCGATCCT	192	60
<i>GR</i>	>NM_001114186.1	Forward: CCACCTCCAAACTCTGCCTAG Reverse: TGCTGTCCTCCACTGCTCTT	113	60
<i>Ki67</i>	>XM_042238739.1	Forward: GAGGCCAATTGATCGTGGC Reverse: AGTGTGGCTCTCTCTGCC	129	60
<i>HGF</i>	>XM_004007806.5	Forward: AGGTACGCTACGAAGTCTGTGA Reverse: CGGTGTGGTGTCTGATGATCC	142	60
<i>Bcl2</i>	>XM_012103831.4	Forward: CCTGTGGATGACCGAGTACCTG Reverse: CCAGACTGAGCAGTGCCTCA	149	60
<i>Bax</i>	>XM_027978592.2	Forward: TCATGGGCTGGACATTGGACTT Reverse: CAGATGGTGAGTGAGGCAGTGA	157	60
<i>RSPO1</i>	>XM_042245742.1	Forward: GAGGAACGACATCCGCCAAG Reverse: GCCTCGCAGTGCTCAATCTT	117	60
<i>RSPO2</i>	>XM_015097839.3	Forward: GTGTGGAAGGATGTGAGGTTGG Reverse: TGGATTCACTGGTTGGACA	159	60
<i>RSPO3</i>	>XM_004011136.4	Forward: CCAGTGAGGCGAGGAAGTGTAA Reverse: GGGCTCCAGACCTTTGTTGTC	143	60
<i>RSPO4</i>	>XM_004014778.4	Forward: CACTCTGCCTGTTGCTGTTG Reverse: GGATACCTTCCGACGGATGAA	180	60
<i>LRP5</i>	>XM_027959820.2	Forward: CGACGGCTCTGACGAACCTCA Reverse: CGCTGGCACACGAAGTAGAC	141	60
<i>LRP6</i>	>XM_042247517.1	Forward: ATCCGCCGCTCCTTCATAGAT Reverse: TATCCGATCAGTGCCAGTGTCT	132	60
<i>Axin2</i>	>XM_042256527.1	Forward: CAACAGCATCGTCTCCAAGCA Reverse: GGTAGGCGTTCTCCTCCATCA	140	60
<i>LEF1</i>	>XM_042251151.1	Forward: AAGGAACAGCAGCAGACTCAGT Reverse: CAACGACGCAGTCAGCAACA	106	60
<i>Notum</i>	>XM_042256238.1	Forward: TGGAAATGCCAACATGGTCTTCA Reverse: TCGCACAAACCTCCTGGATGA	123	60
<i>DKK2</i>	>XM_004009640.5	Forward: TTGCTGTGCTCGTCACCTCTG Reverse: TTGGAGGAGTAGGTGGCATCTT	171	60
<i>CCND1</i>	>XM_027959928.2	Forward: GCCGAGGAGAACAAAGCAGATC Reverse: TGATAGGAGAGGAAGCCGTTGG	170	60
<i>c-Myc</i>	>XM_042253807.1	Forward: GGACACGGAGGGAGAATGACAAG Reverse: TGGACCGACAGGATGTATGCT	177	60

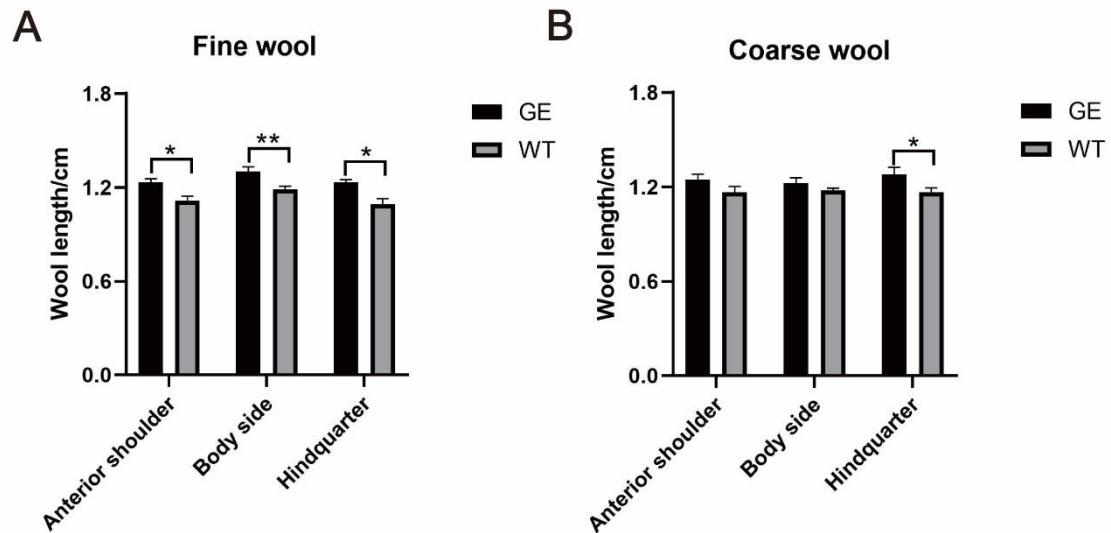
**Figure S1** Proportion statistics of non-medullated wool, heterotypical wool, and medullated wool during anagen phase: (A) Proportion statistics of non-medullar wool in the three parts; (B) Proportion statistics of heterotypical wool in the three parts; (C) Proportion statistics of medullated wool in the three parts.



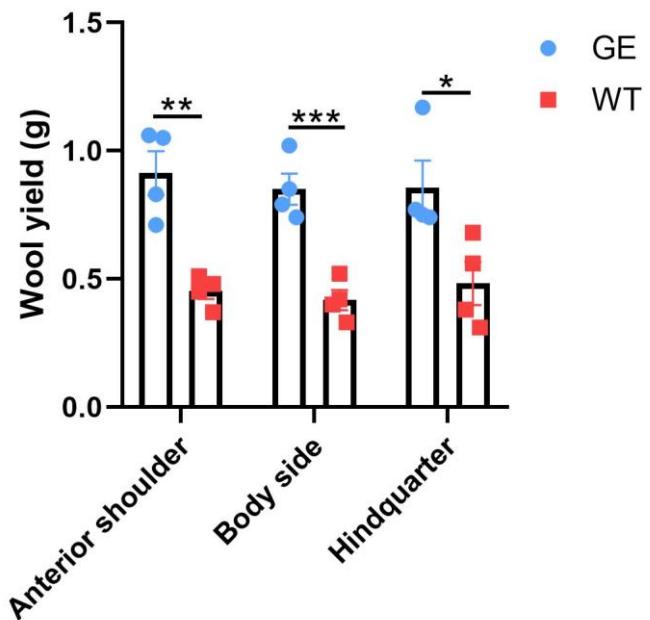
**Figure S2** Detection of wool density during telogen: (A) Photograph of skin follicles 48 h after shaving. The actual area shown in the picture is 9 mm<sup>2</sup>. (B) Changes in coarse and fine wool density in different parts of GE and control group. The statistical results in figure B are from figure A.



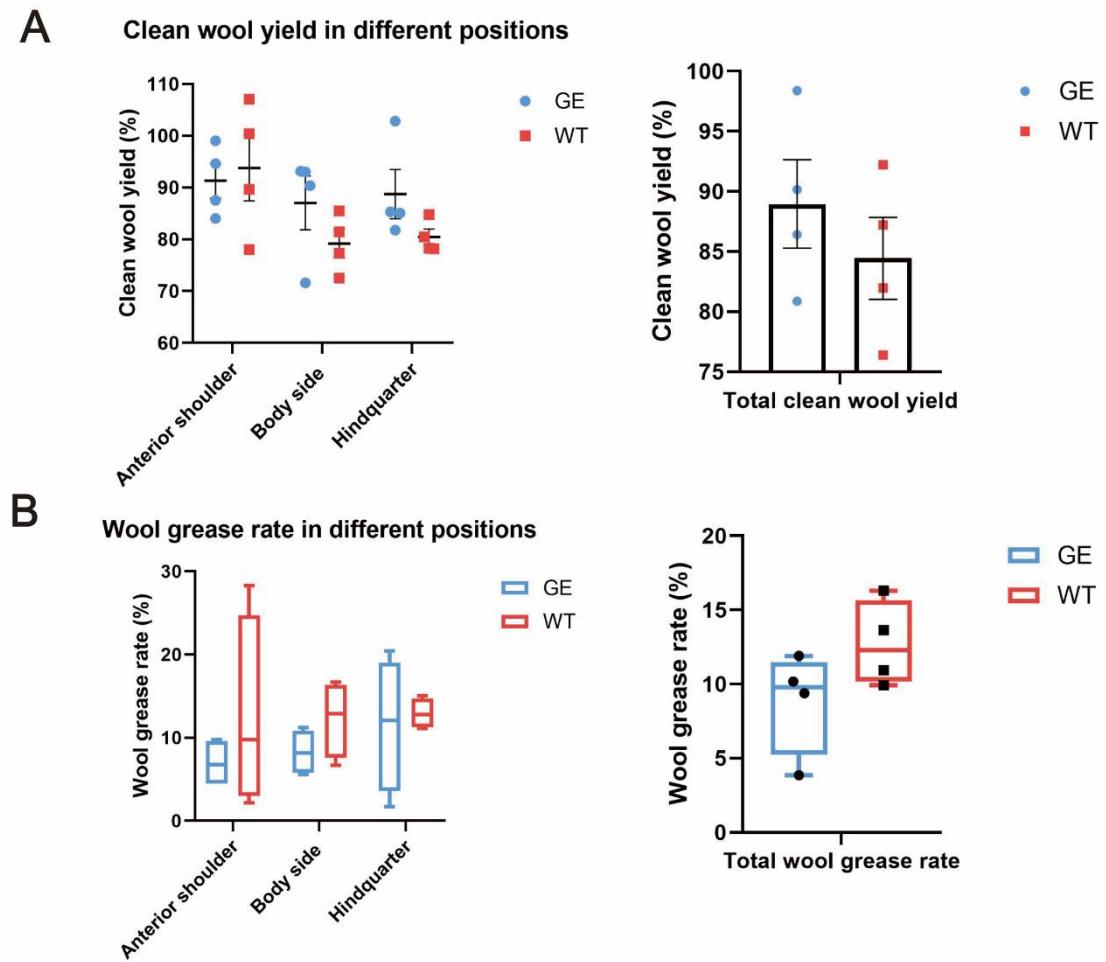
**Figure S3** One-month wool stretched length of GE sheep and WT sheep: (A) The stretched length of fine wool; (B) The stretched length of coarse wool.



**Figure S4** The wool yield of GE and WT sheep.



**Figure S5** The clean wool yield and wool grease rate in GE and WT sheep: (A) The clean wool yield of GE and WT sheep; (B) The wool grease rate of GE and WT sheep.



**Figure S6** Skin tissue structural parameters in the GE and WT groups: (A) Primary hair follicle diameter statistics of GE and WT; (B) The depth of primary hair follicle in GE and WT groups; (C) The depth of secondary follicle in GE and WT groups.

