

Table S1. Association of *SHE* gene CNV with growth traits in four sheep breeds.

Breed	Growth Traits	CNV Type (Mean \pm SE)			<i>p</i>
		Loss	Normal	Gain	
CKS	body height (cm)	66.16 \pm 0.97	66.84 \pm 0.96	66.62 \pm 0.96	0.491
	heart girth (cm)	90.00 \pm 1.93	90.03 \pm 1.92	89.22 \pm 1.92	0.676
	body weight (kg)	54.33 \pm 2.91	56.51 \pm 2.88	54.61 \pm 2.89	0.367
HS	body height (cm)	61.63 \pm 0.30	62.32 \pm 0.77	62.50 \pm 0.75	0.452
	rump width (cm)	17.36 \pm 0.09	17.50 \pm 0.23	17.72 \pm 0.23	0.354
	body slanting length (cm)	70.88 \pm 0.31	70.83 \pm 0.77	70.12 \pm 0.77	0.658
	body weight (kg)	32.01 \pm 0.37	32.92 \pm 0.92	33.17 \pm 0.92	0.388
STHS	body slanting length (cm)	58.78 \pm 0.77	58.85 \pm 0.87	59.24 \pm 0.75	0.900
	body height (cm)	62.64 \pm 0.53	63.04 \pm 0.60	64.01 \pm 0.52	0.164
	heart girth (cm)	71.16 \pm 0.75	72.10 \pm 0.85	72.81 \pm 0.73	0.286
	Circumference of cannon bone (cm)	7.16 \pm 0.09	6.98 \pm 0.10	7.12 \pm 0.08	0.433
LTHS	chest depth (cm)	27.61 \pm 0.33	27.77 \pm 0.37	27.48 \pm 0.32	0.850
	body slanting length (cm)	76.51 \pm 2.87	76.96 \pm 1.71	77.00 \pm 2.19	0.990
	chest width (cm)	21.69 \pm 1.16	22.58 \pm 0.69	22.99 \pm 0.82	0.690
	body height (cm)	76.84 \pm 2.64	78.33 \pm 1.58	75.86 \pm 2.02	0.573
	heart girth (cm)	90.23 \pm 3.09	94.95 \pm 1.71	98.56 \pm 2.26	0.123
	circumference of cannon bone (cm)	8.01 \pm 0.35	7.92 \pm 0.21	7.44 \pm 0.27	0.287
	chest depth (cm)	37.05 \pm 2.14	35.03 \pm 1.77	35.01 \pm 1.60	0.697
	high at the cross (cm)	76.39 \pm 7.02	82.80 \pm 4.19	90.68 \pm 5.37	0.258
body weight (kg)	50.16 \pm 5.94	55.83 \pm 3.42	58.12 \pm 4.22	0.590	

CKS: loss (169), normal (86), gain (47). HS: loss (150), normal (24), gain (24). STHS: loss (65), normal (54), gain (70). LTHS: loss (6), normal (30), gain (25).

Table S2. The phenotypic variance explained by the CNV of *SHE* gene.

Breeds	Growth Traits	R2	Percentage
CKS	body length (cm)	0.0004	0.04%
HS	circumference of cannon bone (cm)	0.0240	2.40%
	heart girth (cm)	0.0390	3.90%
STHS	chest width (cm)	0.0004	0.04%
	high at the cross (cm)	0.0388	3.88%

CKS: loss (169), normal (86), gain (47). HS: loss (150), normal (24), gain (24). STHS: loss (65), normal (54), gain (70).

Table S3. The additive and dominance effect of the *SHE* gene CNV.

Breeds	Growth Traits (cm)	Type	Additive Effect Value	Dominant Effect Value
CKS	body length	Loss	-0.92	-0.31
		Normal	0.61	0.72
		Gain	2.14	-1.69
HS	circumference of cannon bone	Loss	-0.16	0.08
		Normal	0.28	-0.35
		Gain	0.72	1.58
STHS	chest width	Loss	-0.08	-0.01
		Normal	0.14	0.04
		Gain	0.36	-0.16
STHS	high at the cross	Loss	0.54	-0.62
		Normal	0.02	0.58
		Gain	-0.51	-0.55
STHS	high at the cross	Loss	-1.14	0.60
		Normal	-0.55	-0.56
		Gain	1.07	0.52

CKS: loss (169), normal (86), gain (47). HS: loss (150), normal (24), gain (24). STHS: loss (65), normal (54), gain (70).