

**Table S4.** Associations for the SNPs of *IGF1R* gene with body weight traits and ADG traits in Hulun Buir sheep (mean  $\pm$  SE, n = 229)

SNPs	Genotypes	Body weight (kg)			Average daily gain (ADG) (g)		
		BW	WW	NBW	0-4 ADG	4-9 ADG	0-9 ADG
SNP4	CC (227)	4.20 $\pm$ 0.04	23.31 $\pm$ 0.47	32.31 $\pm$ 0.50	153.12 $\pm$ 3.45	62.10 $\pm$ 1.24	104.33 $\pm$ 1.76
	CT (2)	4.04 $\pm$ 0.10	27.10 $\pm$ 5.70	33.80 $\pm$ 5.10	190.28 $\pm$ 39.21	46.33 $\pm$ 3.67	112.19 $\pm$ 17.23
SNP5	GG (187)	4.18 $\pm$ 0.05	23.40 $\pm$ 0.53	32.35 $\pm$ 0.55	153.42 $\pm$ 3.90	61.72 $\pm$ 1.28	104.35 $\pm$ 1.93
	GA (42)	4.28 $\pm$ 0.10	23.10 $\pm$ 0.94	32.21 $\pm$ 1.13	153.58 $\pm$ 7.24	63.04 $\pm$ 3.53	104.62 $\pm$ 4.12
SNP6	TT (71)	4.15 $\pm$ 0.08	23.43 $\pm$ 0.85	32.32 $\pm$ 0.90	154.48 $\pm$ 6.43	61.37 $\pm$ 2.03	104.48 $\pm$ 3.20
	TC (104)	4.18 $\pm$ 0.07	22.60 $\pm$ 0.66	31.59 $\pm$ 0.73	147.75 $\pm$ 4.76	61.90 $\pm$ 1.90	101.70 $\pm$ 2.52
	CC (54)	4.28 $\pm$ 0.09	24.68 $\pm$ 1.00	33.75 $\pm$ 1.03	163.06 $\pm$ 7.50	62.86 $\pm$ 2.62	109.48 $\pm$ 3.65
SNP7	CC (83)	4.16 $\pm$ 0.08	4.16 $\pm$ 0.08	31.97 $\pm$ 0.82	152.55 $\pm$ 5.70	61.21 $\pm$ 2.04	103.38 $\pm$ 2.92
	CT (114)	4.21 $\pm$ 0.06	4.21 $\pm$ 0.06	32.09 $\pm$ 0.71	151.35 $\pm$ 4.79	62.00 $\pm$ 1.74	103.48 $\pm$ 2.47
	TT (32)	4.22 $\pm$ 0.12	4.22 $\pm$ 0.12	34.10 $\pm$ 1.32	163.23 $\pm$ 9.95	63.74 $\pm$ 3.41	110.30 $\pm$ 4.55
SNP8	TT (74)	<b>4.24 <math>\pm</math> 0.08<sup>a</sup></b>	<b>25.14 <math>\pm</math> 0.81<sup>A</sup></b>	<b>33.92 <math>\pm</math> 0.84<sup>A</sup></b>	<b>165.56 <math>\pm</math> 5.81<sup>A</sup></b>	60.72 $\pm$ 2.00	<b>109.61 <math>\pm</math> 2.86<sup>A</sup></b>
	TC (118)	<b>4.25 <math>\pm</math> 0.06<sup>a</sup></b>	<b>23.14 <math>\pm</math> 0.64<sup>A</sup></b>	<b>32.41 <math>\pm</math> 0.70<sup>A</sup></b>	<b>152.11 <math>\pm</math> 4.85<sup>A</sup></b>	63.94 $\pm$ 1.86	<b>104.74 <math>\pm</math> 2.50<sup>A</sup></b>
	CC (37)	<b>3.95 <math>\pm</math> 0.12<sup>b</sup></b>	<b>20.44 <math>\pm</math> 1.08<sup>B</sup></b>	<b>28.87 <math>\pm</math> 1.13<sup>B</sup></b>	<b>133.49 <math>\pm</math> 7.99<sup>B</sup></b>	58.12 $\pm$ 2.54	<b>92.88 <math>\pm</math> 4.00<sup>B</sup></b>
SNP9	GG (184)	4.18 $\pm$ 0.05	23.35 $\pm$ 0.54	32.31 $\pm$ 0.56	152.96 $\pm$ 3.94	61.83 $\pm$ 1.29	55.85 $\pm$ 0.41
	GA (45)	4.26 $\pm$ 0.10	23.35 $\pm$ 0.90	32.38 $\pm$ 1.09	155.43 $\pm$ 6.89	62.48 $\pm$ 3.39	56.83 $\pm$ 0.69
SNP10	AA (158)	4.28 $\pm$ 0.05	24.15 $\pm$ 0.54	33.00 $\pm$ 0.59	158.89 $\pm$ 4.00	61.11 $\pm$ 1.50	106.49 $\pm$ 2.07
	AG (65)	4.02 $\pm$ 0.08	21.29 $\pm$ 0.89	30.60 $\pm$ 0.93	139.19 $\pm$ 6.71	64.15 $\pm$ 2.31	98.89 $\pm$ 3.32
	GG (6)	3.95 $\pm$ 0.24	24.45 $\pm$ 2.99	33.23 $\pm$ 3.31	164.55 $\pm$ 22.22	60.63 $\pm$ 3.89	108.89 $\pm$ 11.99
SNP11	TT (167)	4.15 $\pm$ 0.05	23.11 $\pm$ 0.56	32.04 $\pm$ 0.59	151.13 $\pm$ 4.12	61.61 $\pm$ 1.39	103.25 $\pm$ 2.05
	TC (57)	4.33 $\pm$ 0.09	24.09 $\pm$ 0.86	33.14 $\pm$ 0.97	160.45 $\pm$ 6.58	62.54 $\pm$ 2.73	107.63 $\pm$ 3.52
	CC (5)	4.09 $\pm$ 0.36	22.82 $\pm$ 1.96	32.50 $\pm$ 2.92	151.01 $\pm$ 16.03	66.95 $\pm$ 7.43	105.73 $\pm$ 10.92
SNP12	CC (213)	4.19 $\pm$ 0.05	23.37 $\pm$ 0.48	32.36 $\pm$ 0.52	153.54 $\pm$ 3.56	62.10 $\pm$ 1.30	104.54 $\pm$ 1.81
	CT (16)	4.26 $\pm$ 0.21	23.06 $\pm$ 1.84	31.80 $\pm$ 1.86	152.21 $\pm$ 13.89	60.13 $\pm$ 3.33	102.56 $\pm$ 6.68
SNP13	CC (113)	4.27 $\pm$ 0.06	24.02 $\pm$ 0.67	<b>33.23 <math>\pm</math> 0.72<sup>a</sup></b>	158.82 $\pm$ 5.01	63.55 $\pm$ 1.89	<b>107.62 <math>\pm</math> 2.57<sup>a</sup></b>
	CG (95)	4.13 $\pm$ 0.07	23.00 $\pm$ 0.71	<b>31.87 <math>\pm</math> 0.73<sup>ab</sup></b>	150.58 $\pm$ 5.15	61.33 $\pm$ 1.81	<b>102.84 <math>\pm</math> 2.53<sup>ab</sup></b>
	GG (21)	4.04 $\pm$ 0.16	21.31 $\pm$ 1.59	<b>29.48 <math>\pm</math> 1.71<sup>b</sup></b>	137.44 $\pm$ 11.44	56.27 $\pm$ 2.95	<b>94.11 <math>\pm</math> 5.87<sup>b</sup></b>

BW = birth weight; WW = Weaning weight; NBW = weight at 9-month of age; 0-4 ADG, 4-9 ADG and 0-9 ADG represent the average daily weight gain before weaning, after weaning and from birth to 9-month of age, respectively. Different letter (small letters:  $p < 0.05$ ; capital letters:  $p < 0.01$ ) superscripts with boldface font in a column indicate significant differences among the different genotypes.