

Table S1: *SLC2A9* involved epistatic pairs ($-\log_{10}P_{\text{pair}} > 6.5$ and $-\log_{10}P_{\text{int}} > 6.5$) in MICROS

SNP ₁	chr ₁	gene ₁	SNP ₂	chr ₂	gene ₂	P _{pair}	P _{int}	MGC
rs12130085	1	<i>NFIA</i>	rs13129697	4	<i>SLC2A9</i>	13.86	6.54	2
rs12130085	1	<i>NFIA</i>	rs737267	4	<i>SLC2A9</i>	16.38	8.2	2
rs12130085	1	<i>NFIA</i>	rs13131257	4	<i>SLC2A9</i>	13.8	6.75	2
rs1464258	4	<i>SLC2A9</i>	rs838795	5	<i>C5orf50</i>	7.04	7.08	17
rs733175	4	<i>SLC2A9</i>	rs1173723	5	(-)	10.45	6.8	6
rs733175	4	<i>SLC2A9</i>	rs1818116	5	(-)	11.43	7.27	7
rs4697895	4	<i>SLC2A9</i>	rs4747887	10	<i>PFKFB3</i>	7.16	6.59	15
rs4697895	4	<i>SLC2A9</i>	rs7099083	10	<i>PFKFB3</i>	7.35	6.78	15
rs1107710	4	<i>SLC2A9</i>	rs7099083	10	<i>PFKFB3</i>	6.66	6.78	11
rs1107710	4	<i>SLC2A9</i>	rs12281918	11	<i>FLI1</i>	7.66	6.63	2
rs4697902	4	<i>SLC2A9</i>	rs2374532	12	(-)	7.16	6.56	1
rs4697895	4	<i>SLC2A9</i>	rs1887589	13	(-)	8.45	7.33	2
rs4697902	4	<i>SLC2A9</i>	rs1887589	13	(-)	7.39	6.67	2
rs737267	4	<i>SLC2A9</i>	rs9316212	13	<i>ESRRAP2</i>	16.21	7.97	2
rs13131257	4	<i>SLC2A9</i>	rs9316212	13	<i>ESRRAP2</i>	14.98	7.88	2
rs2867394	4	<i>SLC2A9</i>	rs7141105	14	<i>SLC8A3</i>	8.06	6.58	4
rs733175	4	<i>SLC2A9</i>	rs137180	22	<i>SEZ6L</i>	10.09	6.58	4

SNP₁ (SNP₂): the first (second) SNP name;

chr₁ (chr₂): the chromosome where SNP₁ (SNP₂) locates

gene₁ (gene₂): symbol of the gene annotated by SNP₁ (SNP₂);

P_{pair}: $-\log_{10}$ P value of the whole pair test;

P_{int}: $-\log_{10}$ P value of the interaction test;

MGC: count of number of individuals in the minor joint genotype class

(-): no gene annotated