S6 Table. MAGMA gene set enrichment analysis. Gene sets with adjusted *p* <0.05 or top 10 gene sets shown.

1) Gestational duration

Gene Set	N genes	Beta	Beta STD	SE	P	Pbon
GO_bp:go_regulation_of_male_gonad_development	8	1.6697	0.033679	0.32374	1.2642e-07	0.001958
GO_bp:go_negative_regulation_of_gonad_development	6	1.7937	0.031335	0.35575	2.3236e-07	0.003599
GO_bp:go_regulation_of_steroid_hormone_biosynthetic_process	10	1.2403	0.027969	0.25691	6.9596e-07	0.010778
GO_bp:go_kidney_mesenchyme_development	19	0.8523	0.026487	0.19948	9.6990e-06	0.150189
Curated_gene_sets:naba_basement_membranes	40	0.6294	0.028362	0.15166	1.6717e-05	0.258846
GO_bp:go_mesenchymal_cell_differentiation_involved_in_kidney_development	8	1.1576	0.023350	0.28038	1.8309e-05	0.283478
GO_bp:go_regulation_of_glucocorticoid_biosynthetic_process	7	1.2095	0.022821	0.29547	2.1344e-05	0.330448
GO_bp:go_primary_alcohol_biosynthetic_process	11	0.9794	0.023162	0.25015	4.5343e-05	0.701955
GO_bp:go_negative_regulation_of_ion_transport	141	0.2822	0.023813	0.07226	4.7241e-05	0.731291
GO_bp:go_regulation_of_aldosterone_metabolic_process	7	1.2520	0.023623	0.32220	5.1185e-05	0.792293

2) SPTB

Gene Set	N genes	Beta	Beta STD	SE	P	Pbon
GO_cc:go_kinetochore_microtubule	7	0.9345	0.017629	0.26517	0.00021371	1
GO_bp:go_neuron_differentiation	1329	0.0843	0.021160	0.02393	0.00021529	1
GO_bp:go_regulation_of_delayed_rectifier_potassium_channel_activity	18	0.7170	0.021688	0.20799	0.00028397	1
Curated_gene_sets:hoshida_liver_cancer_subclass_s1	236	0.1804	0.019653	0.05262	0.00030361	1
GO_bp:go_actin_polymerization_dependent_cell_motility	6	1.2503	0.021843	0.36631	0.00032184	1
GO_bp:go_neurogenesis	1573	0.0747	0.020276	0.02203	0.00034715	1
Curated_gene_sets:berenjeno_transformed_by_rhoa_reversibly_dn	30	0.5587	0.021814	0.16765	0.00043084	1
GO_bp:go_cell_cell_adhesion_via_plasma_membrane_adhesion_molecules	268	0.1985	0.023024	0.05994	0.00046403	1
GO_bp:go_g_protein_coupled_purinergic_receptor_signaling_pathway	22	0.6551	0.021907	0.19785	0.00046538	1
Curated_gene_sets:mohankumar_hoxa1_targets_dn	161	0.2111	0.019030	0.06392	0.00047957	1