

Table S3 Summary of ANOVA and covariate analyses of sex and craniofacial QTL.

Trait	DF	ANOVA				Covariate Analysis			Method
		Sum of Squares	Mean Square	F-value	P-value	Significant Marker (LOD)	LOD Covariate - Sex	Associated Marker (P-value)	
RSO1+2 Fusion	1	0.456	0.45564	1.823	0.1784	-	-	215D (0.998); 229B (0.656)	HK
	213	53.237	0.24994						
RSO2 Area	1	0.373	0.37295	1.4899	0.2236	-	-	110B (0.783); 229B (0.777)	HK
	213	53.32	0.25033						
RSO2 Area Residuals	1	2.24	2.24047	9.275	0.0026*	227A (LOD 5.38)	227A (LOD 3.84)	227A (0.032**)	HK
	213	51.453	0.24156						
LSO2 Area	1	1.496	1.49606	6.105	0.0143*	-	-	NYU27 (0.86); 229B (0.761)	EM
	210	51.461	0.24505						
LSO2 Area Residuals	1	4.013	4.0128	17.217	0.00005*	227A (LOD 5.35)	227A (LOD 4.15)	227A (0.012**)	HK
	210	48.945	0.2331						
RSO3 Area	1	0.16	0.16048	0.6384	0.4252	-	-	55B (0.167); 229B (0.065)	HK
	214	53.798	0.25139						
RSO3 Area Residuals	1	0.014	0.013598	0.0539	0.8166	-	-	-	MR
	214	53.945	0.252078						
LSO3 Area	1	0.15	0.15017	0.5969	0.4406	55B (LOD 4.02)	55B (LOD 3.83)	55B (0.039**); 229B (0.082)	HK
	210	52.831	0.25158						
LSO3 Area Residuals	1	0.005	0.004662	0.0185	0.892	-	-	203F (0.057)	EM
	210	52.976	0.252269						
RSO3 Number	1	0.025	0.025239	0.1001	0.752	206A (LOD 5.34)	206A (LOD 5.62)	206A (0.003**)	HK
	214	53.933	0.252024						
RSO4 Area	1	0.034	0.033822	0.1342	0.7145	-	-	-	MR
	214	53.948	0.252092						
RSO4 Area Residuals	1	0.597	0.59699	2.3931	0.1233	-	-	-	-
	214	53.384	0.24946						

LSO4 Area	1	0.304	0.30388	1.2106	0.2726	-	-	229B (0.464)	EM
	193	48.445	0.25101						
LSO4 Area Residuals	1	0.357	0.35721	1.4247	0.2341	-	-	-	-
	193	48.392	0.25073						
LSO4+5 Fusion	1	0.054	0.053678	0.213	0.6449	-	-	-	MR
	211	53.167	0.251976						
RSO5 Area	1	0.068	0.068261	0.2709	0.6032	-	-	NYU53 (0.23)	HK
	214	53.913	0.251931						
RSO5 Area Residuals	1	0.695	0.69548	2.7931	0.0961	-	-	-	-
	214	53.286	0.249						
LSO5 Area	1	0.011	0.011236	0.0445	0.8331	-	-	-	MR
	193	48.727	0.252473						
LSO5 Area Residuals	1	0.132	0.13198	0.5241	0.47	-	-	-	MR
	193	48.606	0.25185						

* Indicates ANOVA result significant at $p < 0.05$

** Indicates covariate analysis result significant at $p < 0.05$