

1 Supplementary Table S1. Genetic and phenotypic correlations between fatty acid compositions of Korean native chicken meat (above diagonal is genetic correlation and
2 below diagonal is phenotypic correlation results)

Trait ¹⁾		Thigh									Breast								
		C16:0	C16:1 ^S	C18:0	C18:1	C18:2	C18:3	C20:1 ^N	C20:4 ^N	C22:6 ^N	C16:0	C16:1 ^S	C18:0	C18:1	C18:2	C18:3 ^N	C20:1 ^N	C20:4 ^S	C22:6 ^S
Thigh	C16:0	-	0.775	-0.793	0.717	0.008	0.833	-0.704	-0.903	-0.759	0.611	0.804	-0.829	0.726	0.573	0.813	-0.687	-0.839	-0.543
	C16:1 ^S	0.848	-	-0.888	0.9	-0.338	0.757	-0.272	-0.89	-0.843	0.652	0.981	-0.792	0.882	0.465	0.675	-0.035	-0.894	-0.584
	C18:0	-0.828	-0.849	-	-0.859	-0.03	-0.759	0.43	0.877	0.87	-0.693	-0.931	ne	ne	-0.69	-0.811	ne	0.9	0.683
	C18:1	0.801	0.831	-0.842	-	-0.287	ne	-0.21	-0.925	-0.909	0.693	ne	-0.948	0.951	0.549	0.728	0.331	-0.909	-0.634
	C18:2	-0.408	-0.478	0.259	-0.493	-	0.011	0.297	0.042	-0.093	-0.125	-0.211	0.127	-0.125	0.538	0.28	ne	-0.05	-0.289
	C18:3	0.754	0.684	-0.804	0.726	-0.045	-	-0.392	-0.954	-0.888	0.614	0.8	-0.719	0.795	0.824	ne	-0.498	-0.947	-0.894
	C20:1 ^N	-0.354	-0.278	0.302	0.001	-0.033	-0.263	-	0.423	0.324	-0.464	-0.439	0.238	-0.367	0.311	-0.324	ne	0.359	0.408
	C20:4 ^N	-0.873	-0.835	0.83	-0.903	0.29	-0.828	0.147	-	0.916	-0.726	-0.909	0.906	-0.86	-0.739	-0.944	0.487	0.958	0.685
	C22:6 ^N	-0.759	-0.705	0.649	-0.727	0.17	-0.7	0.19	0.861	-	-0.594	-0.887	0.893	-0.882	-0.721	-0.895	0.496	0.91	0.927
Breast	C16:0	0.793	0.728	-0.656	0.623	-0.381	0.58	-0.27	-0.7	-0.573	-	0.724	-0.754	0.773	0.149	0.651	-0.617	ne	-0.492
	C16:1 ^S	0.825	0.916	-0.781	0.776	-0.429	0.681	-0.326	-0.81	-0.717	0.751	-	-0.921	0.95	0.497	0.8	-0.518	-0.94	-0.655
	C18:0	-0.724	-0.742	0.778	-0.663	0.264	-0.655	0.345	0.68	0.543	-0.684	-0.809	-	ne	-0.393	-0.774	ne	0.931	0.685
	C18:1	0.766	0.787	-0.799	0.865	-0.467	0.683	-0.22	-0.807	-0.667	0.632	0.861	-0.741	-	0.427	0.822	-0.325	-0.899	-0.607
	C18:2	0.104	0.06	-0.139	0.041	0.505	0.324	0.001	-0.236	0.247	0.16	0.162	-0.304	0.042	-	0.778	-0.111	-0.724	-0.711
	C18:3 ^N	0.65	0.576	-0.642	0.505	-0.135	0.678	-0.438	-0.678	-0.538	0.566	0.711	-0.739	0.709	0.368	-	ne	-0.968	-0.892
	C20:1 ^N	-0.454	-0.341	0.378	-0.109	-0.013	-0.332	0.57	0.289	0.222	-0.428	-0.307	0.414	-0.071	-0.041	-0.297	-	0.575	ne
	C20:4 ^S	-0.805	-0.773	0.759	-0.798	0.276	-0.757	0.235	0.868	0.74	-0.739	-0.856	0.729	-0.88	-0.351	-0.857	0.178	-	0.72
	C22:6 ^S	-0.541	-0.501	0.462	-0.514	0.122	-0.514	0.16	0.585	0.708	-0.483	-0.639	0.482	-0.62	-0.427	-0.576	-0.035	0.736	-

3 ¹⁾ C16:0, palmitic acid; C16:1, palmitoleic acid; C18:0, stearic acid; C18:1, oleic acid; C18:2, linoleic acid; C18:3, linolenic acid; C20:1, eicosenoic acid; C20:4, arachidonic
4 acid; C22:6, docosahexaenoic acid (DHA).

5 ^N Natural log transformed data. ^S Square root transformed data.

6 * 5% suggestive threshold. ** 1% significant threshold.