

Supplementary table 1. Changes in n-3 levels post- vs pre-supplementation according to genotype for tagged SNPs (n=208 individuals)

		Δ n-3 ^a			<i>P</i> values ^b		
		Common HMZ	HTZ	Rare HMZ	Genotype	Supplementation	Interaction
<i>IQCJ</i>	rs12497650	5.152 ± 1.942	4.677 ± 2.000	4.427 ± 1.573	-	<0.0001	-
	rs4501157	4.879 ± 1.893	4.833 ± 1.959	4.946 ± 2.183	-	<0.0001	-
	rs13091349 ^c	4.993 ± 2.036	4.576 ± 1.712	-	-	<0.0001	-
	rs2044704	4.794 ± 1.894	5.010 ± 1.885	4.819 ± 2.536	-	<0.0001	-
	rs1962071	4.762 ± 1.832	4.864 ± 2.087	5.475 ± 2.057	-	<0.0001	-
	rs7634829	4.773 ± 1.674	4.792 ± 2.061	5.212 ± 2.092	-	<0.0001	-
	rs2621294	4.842 ± 1.861	4.748 ± 1.936	5.361 ± 2.115	-	<0.0001	-
	rs6800211	5.183 ± 2.023	4.634 ± 1.844	4.160 ± 1.771	-	<0.0001	0.049
	rs17782879	4.763 ± 1.770	4.777 ± 2.063	5.781 ± 2.144	-	<0.0001	-
	rs1868414	5.138 ± 2.111	4.628 ± 1.809	4.721 ± 1.605	-	<0.0001	-
	rs2595260	4.815 ± 1.893	4.839 ± 1.941	5.324 ± 2.382	-	<0.0001	-
	rs6763890	4.858 ± 1.902	4.807 ± 2.079	5.0640 ± 1.773	-	<0.0001	-
	rs9827242 ^c	4.962 ± 2.007	4.691 ± 1.836	-	-	<0.0001	-
	rs1449009*	4.783 ± 1.961	5.015 ± 1.788	4.762 ± 2.443	-	<0.0001	-
	rs2621309*	4.793 ± 1.933	5.025 ± 1.815	4.705 ± 2.488	-	<0.0001	-
	rs61332355*	4.816 ± 1.863	4.939 ± 2.179	5.293 ± 1.479	-	<0.0001	-
<i>NXPH1</i>	rs6956210	4.920 ± 1.813	4.716 ± 2.169	5.150 ± 2.048	-	<0.0001	-
	rs2107779	4.614 ± 1.993	4.989 ± 1.906	4.999 ± 1.973	-	<0.0001	-
	rs10273195 ^c	4.913 ± 1.960	4.782 ± 1.938	-	-	<0.0001	-
	rs12216689	4.805 ± 2.070	5.079 ± 1.752	4.166 ± 2.019	0.03	<0.0001	-
	rs6963644	4.830 ± 1.956	5.072 ± 1.929	-	0.03	<0.0001	-
	rs17150341	4.982 ± 1.866	4.640 ± 2.042	5.273 ± 1.926	-	<0.0001	-
	rs1013868	4.659 ± 1.939	5.051 ± 2.016	4.930 ± 1.674	-	<0.0001	-
	rs12537067 ^c	4.913 ± 1.916	4.631 ± 2.122	-	-	<0.0001	-
	rs4318981	4.811 ± 2.026	4.851 ± 1.981	5.074 ± 1.647	-	<0.0001	-
	rs17153997	4.759 ± 1.910	4.911 ± 2.108	4.889 ± 1.652	-	<0.0001	-
	rs7801099	4.989 ± 1.744	4.780 ± 2.096	4.902 ± 1.884	-	<0.0001	-
	rs4725120	4.982 ± 2.063	4.743 ± 1.984	4.972 ± 1.722	-	<0.0001	-
	rs1859275	5.029 ± 1.967	4.624 ± 2.117	5.111 ± 1.234	-	<0.0001	-
	rs10238726	4.882 ± 1.911	4.746 ± 1.992	5.214 ± 1.997	-	<0.0001	-
	rs1012960	5.017 ± 2.037	4.944 ± 2.005	4.514 ± 1.692	-	<0.0001	-
	rs11767429	5.122 ± 2.052	4.711 ± 1.738	4.180 ± 2.042	0.008	<0.0001	-

	rs4333500	4.766 ± 1.744	4.919 ± 2.038	4.929 ± 2.146	-	<0.0001	-
	rs7793115 ^c	4.883 ± 1.977	4.794 ± 1.872	-	-	<0.0001	-
	rs7799856	5.055 ± 2.072	4.729 ± 1.945	4.816 ± 1.749	-	<0.0001	-
	rs7806226 ^c	4.966 ± 2.044	4.598 ± 1.651	-	-	<0.0001	-
	rs13221144	4.964 ± 2.016	4.665 ± 1.878	5.157 ± 1.688	-	<0.0001	-
	rs17406479 ^c	4.909 ± 2.014	4.790 ± 1.836	-	-	<0.0001	-
	rs10486228 ^c	4.765 ± 1.855	5.072 ± 2.125	-	-	<0.0001	-
	rs17154569 ^c	4.640 ± 1.895	5.337 ± 1.995	-	-	<0.0001	-
	rs4141002 ^c	4.813 ± 1.860	5.041 ± 2.227	-	-	<0.0001	-
	rs7805772	4.942 ± 1.985	4.811 ± 1.904	4.379 ± 1.827	-	<0.0001	-
	rs2349780	4.559 ± 1.921	5.026 ± 1.867	5.082 ± 2.306	-	<0.0001	-
	rs2107474	4.684 ± 2.005	4.825 ± 1.987	5.314 ± 1.706	-	<0.0001	-
	rs11769942	4.811 ± 1.882	4.945 ± 2.074	4.782 ± 1.784	-	<0.0001	-
	rs6952383 ^c	4.856 ± 1.939	4.914 ± 2.915	-	-	<0.0001	-
	rs6974252 ^c	4.889 ± 1.983	4.804 ± 1.864	-	-	<0.0001	-
	rs10265408	4.957 ± 1.670	4.616 ± 2.228	5.239 ± 1.851	-	<0.0001	0.04
	rs2189904	4.981 ± 1.896	4.672 ± 2.062	5.222 ± 1.634	-	<0.0001	-
	rs2057862	4.555 ± 1.955	5.028 ± 1.788	5.110 ± 2.283	-	<0.0001	-
<i>PHF17</i>	rs2217023 ^c	4.936 ± 1.990	4.719 ± 1.883	-	-	<0.0001	-
	rs4975270	4.768 ± 2.120	4.886 ± 2.029	4.989 ± 1.479	-	<0.0001	-
	rs11722830 ^c	4.655 ± 2.039	5.199 ± 1.759	-	-	<0.0001	-
	rs12505447 ^c	4.686 ± 2.016	5.208 ± 1.779	-	-	<0.0001	-
	rs6534704 ^c	4.940 ± 1.959	4.412 ± 1.852	-	-	<0.0001	-
	rs13148510	4.878 ± 1.933	4.737 ± 2.177	-	-	<0.0001	-
	rs13143771	4.935 ± 2.048	4.782 ± 1.915	4.837 ± 1.542	-	<0.0001	-
	rs13142964	4.837 ± 1.968	5.036 ± 1.860	-	-	<0.0001	-
<i>MYB</i>	rs9321493	5.096 ± 1.798	4.696 ± 1.970	4.896 ± 2.123	-	<0.0001	-
	rs11154794 ^c	4.761 ± 2.006	5.209 ± 1.727	-	-	<0.0001	-
	rs210798	4.928 ± 1.904	4.739 ± 2.057	5.053 ± 1.790	-	<0.0001	-
	rs210936	5.139 ± 1.809	4.838 ± 2.058	4.602 ± 1.890	-	<0.0001	-
	rs7757388 ^c	4.939 ± 1.958	4.654 ± 1.925	-	-	<0.0001	-
	rs210962	4.939 ± 1.912	4.657 ± 1.974	5.075 ± 2.174	-	<0.0001	-
	rs17639758	4.848 ± 1.953	5.212 ± 1.926	-	-	<0.0001	-
	rs1013891	5.154 ± 1.859	4.607 ± 1.838	4.796 ± 2.533	-	<0.0001	-
	rs2179308	4.989 ± 2.039	4.842 ± 1.882	4.786 ± 2.023	-	<0.0001	-

The MIXED procedure (SAS v9.2) for repeated measures adjusted for age, sex and BMI was used to test for the interaction effects

HMZ: homozygotes, HTZ: heterozygotes

^a Values are means \pm SD

^b Nonsignificant p values were removed to lighten the table

^c HTZ were merged with rare HMZ (dominant model)

* GWAS hit identified in the *FAS* study