

## Supplemental Figure 1

### Chemical composition of the diets

The chemical composition of the standard diet was as follows (g/kg dry diet): starch, 587; casein, 200; cellulose, 50; sucrose, 50; mineral mix, 40; vitamin mix, 20; dl-methionine, 3; sunflower oil (Lesieur, Neuilly-sur-Seine, France), 50. The fatty acid composition of control diet was as follows: 60 %, linoleic acid (18:2n-6), 0.29 % of total (n-3), 29.31 % of monounsaturated fatty acids (largely 18:1) and 9 % of saturated fatty acids. Total oil represented 5% of the diet. The DHA-enriched diet contained 3% of Omegavie DHA90 TG<sup>®</sup> oil and 2% of sunflower oil. The fatty acid composition of DHA enriched diet was as follows: 45.29 %, n-3 PUFA (i.e., 44.15 % DHA, 1.17 % EPA), 31.5 %, linoleic acid (18:2 n-6), 15 % of monounsaturated fatty acids (largely 18:1) and 6.35 % of saturated fatty acids. Omegavie DHA90 TG<sup>®</sup> was tightly sealed under a stream of nitrogen to avoid lipid oxidation and kept at 4°C. Diets were prepared every day, and the mice consumed them ad libitum. Uneaten food was discarded; food cups and water bottles were washed frequently.