

**S1 Table. Determined fat content<sup>#</sup>, peroxide value<sup>+</sup> and fatty acid composition\* of the experimental diets.**

Diets were based on a standard experimental diet from ssniff Spezialdiäten GmbH (product number: E15051; with 17.6% crude protein, 5.0% crude fiber, 5.3% crude ash, 31.4% starch, 11.0% sugar and 10.1% fat as specified by the manufacturer). All results are shown as mean  $\pm$  deviation from the mean (n=2).

	<b>STD</b>	<b>STD+n3</b>
<b>Determined fat content</b> in the diet [g/100g]	9.7 $\pm$ 0.2	9.9 $\pm$ 0.2
<b>Peroxide value</b> [mEq O <sub>2</sub> /kg]	2.6 $\pm$ 0.1	3.6 $\pm$ 0.1
<b>[%] Fatty Acid</b> in lipid extract		
C14:0	0.15 $\pm$ 0.05	0.19 $\pm$ 0.04
C15:0	0.07 $\pm$ 0.02	-
C16:0	7.995 $\pm$ 0.008	6.61 $\pm$ 0.05
C16:1n7	0.217 $\pm$ 0.008	0.24 $\pm$ 0.03
C17:0	0.071 $\pm$ 0.007	0.058 $\pm$ 0.007
C18:0	3.288 $\pm$ 0.001	2.64 $\pm$ 0.03
C18:1n9	27.064 $\pm$ 0.004	21.65 $\pm$ 0.06
C18:1n7	1.26 $\pm$ 0.04	1.047 $\pm$ 0.003
C18:2n6	58.306 $\pm$ 0.003	46.5 $\pm$ 0.1
C18:3n3	0.335 $\pm$ 0.005	0.287 $\pm$ 0.003
C20:0	0.218 $\pm$ 0.003	0.184 $\pm$ 0.004
C20:1n9	0.167 $\pm$ 0.002	0.14 $\pm$ 0.01
C20:4n6	-	0.303 $\pm$ 0.003
C20:5n3	-	8.91 $\pm$ 0.07
C22:0	0.653 $\pm$ 0.008	0.95 $\pm$ 0.03
C22:5n3	-	1.18 $\pm$ 0.05
C24:0	0.204 $\pm$ 0.008	-
C22:6n3	-	8.91 $\pm$ 0.09
C24:1n9	-	0.17 $\pm$ 0.02

<sup>#</sup>For the determination of the fatty acid composition and the peroxide value, lipids were first extracted from the pellets according to the Weibull-Stoldt method, performed as rapid microextraction [1].

<sup>+</sup>Determination of the peroxide value was performed by iodometry as described [3]. Briefly, after dissolving the lipid extract in acetic acid/isooctane (3:2, v:v) and addition of potassium iodide the formed iodine titrated with sodium thiosulfate.

\*The fatty acid composition was determined after derivatization to fatty acid methyl esters by means of gas chromatography with flame ionization detection using response factors [2].

## References

1. Schulte E. Vereinfachte Mikromethode zur gravimetrischen Bestimmung des Fettgehaltes von Lebensmittels nach Säureaufschluss (Kurzmitteilung). Deutsche Lebensmittelrundschau. 2004;100(5):188-9.
2. Ostermann AI, Muller M, Willenberg I, Schebb NH. Determining the fatty acid composition in plasma and tissues as fatty acid methyl esters using gas chromatography - a comparison of different derivatization and extraction procedures. Prostaglandins Leukot Essent Fatty Acids. 2014;91(6):235-41.
3. Untersuchung von Lebensmitteln, Bestimmung der Peroxidzahl in tierischen und pflanzlichen Fetten und Ölen, Iodometrische (visuelle) Endpunktbestimmung (13.00-37). In Amtliche Sammlung von Untersuchungsverfahren nach § 64 LFBG, 2012; BVL.