

Supporting information

Biomass of the oleaginous yeast *Rhodotorula toruloides* as feed ingredient in the diet of Arctic char (*Salvelinus alpinus*): impact on quality; safety and sensory outcome

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Supplementary Table S1. Native PAHs used as authentic reference standards and their corresponding deuterium labelled internal standards. *Abbreviations CIL = Cambridge Isotope Laboratories, Inc (Andover, MA, USA)*

Native compound	Origin	Internal standard	Origin
naphthalene	CIL	[² H ₈]- naphthalene	CIL
acenaphthylene	CIL	[² H ₈]- acenaphthylene	CIL
acenaphthene	CIL	[² H ₁₀]- acenaphthene	CIL
fluorene	CIL	[² H ₁₀]- fluorene	CIL
phenanthrene	CIL	[² H ₁₀]- phenanthrene	CIL
anthracene	CIL	[² H ₁₀]- anthracene	CIL
fluoranthene	CIL	[² H ₁₀]- fluoranthene	CIL
pyrene	CIL	[² H ₁₀]- pyrene	CIL
benz(a)anthracene	CIL	[² H ₁₂]- benz(a)anthracene	CIL
chrysene	CIL	[² H ₁₂]- chrysene	CIL
benzo(b)fluoranthene	CIL	[² H ₁₂]- benzo(b)fluoranthene	CIL
benzo(k)fluoranthene	CIL	[² H ₁₂]- benzo(k)fluoranthene	CIL
benzo(a)pyrene	CIL	[² H ₁₂]- benzo(a)pyrene	CIL
perylene	CIL	[² H ₁₂]- perylene	CIL
indeno(1,2,3-c,d)pyrene	CIL	[² H ₁₂]- indeno(1,2,3-c,d)pyrene	CIL
dibenz(a,h)anthracene	CIL	[² H ₁₄]- dibenz(a,h)anthracene	CIL
benzo(g,h,i)perylene	CIL	[² H ₁₂]- benzo(g,h,i)perylene	CIL

Supplementary Table S2. Isotope labelled PCB used as recovery standard. *Abbreviations CIL = Cambridge Isotope Laboratories, Inc (Andover, MA, USA)*

Compound (abbreviation)	Origin
2,2',3',4,5-pentachloro-(¹³ C ₁₂)-biphenyl (CB-97 [¹³ C ₁₂])	CIL

Supplementary Table S3. Native PCBs and HCB used as authentic reference standards and their corresponding isotope labelled internal standards. *Abbreviations* WL = Wellington Laboratories, Inc. (Guelph, Ontario, Canada), CIL = Cambridge Isotope Laboratories, Inc (Andover, MA, USA), SA= Sigma-Aldrich (Steinheim, Germany)

Native compound (Abbreviation)	Origin	Internal standard	Origin
Hexachlorobenzene (HCB)	SA	HCB [$^{13}\text{C}_6$]	CIL
2,4,4'-trichlorobiphenyl (CB-28)	WL	CB-28 [$^{13}\text{C}_{12}$]	WL
2,2',5,5'-tetrachlorobiphenyl (CB-52)	WL	CB-52 [$^{13}\text{C}_{12}$]	WL
3,3',4,4'-tetrachlorobiphenyl (CB-77)	WL	CB-77 [$^{13}\text{C}_{12}$]	WL
3,4,4',5-tetrachlorobiphenyl (CB-81)	WL	CB-81 [$^{13}\text{C}_{12}$]	WL
2,2',4,5,5'-pentachlorobiphenyl (CB-101)	WL	CB-101 [$^{13}\text{C}_{12}$]	WL
2,3,3',4,4'-pentachlorobiphenyl (CB-105)	WL	CB-105 [$^{13}\text{C}_{12}$]	WL
2,3,4,4',5-pentachlorobiphenyl (CB-114)	WL	CB-114 [$^{13}\text{C}_{12}$]	WL
2,3',4,4',5-pentachlorobiphenyl (CB-118)	WL	CB-118 [$^{13}\text{C}_{12}$]	WL
2',3,4,4',5-pentachlorobiphenyl (CB-123)	WL	CB-123 [$^{13}\text{C}_{12}$]	WL
3,3',4,4',5-pentachlorobiphenyl (CB-126)	WL	CB-126 [$^{13}\text{C}_{12}$]	WL
2,2',3,4,4',5'-hexachlorobiphenyl (CB-138)	WL	CB-138 [$^{13}\text{C}_{12}$]	WL
2,2',4,4',5,5'-hexachlorobiphenyl (CB-153)	WL	CB-153 [$^{13}\text{C}_{12}$]	WL
2,3,3',4,4',5-hexachlorobiphenyl (CB-156)	WL	CB-156 [$^{13}\text{C}_{12}$]	WL
2,3,3',4,4',5-hexachlorobiphenyl (CB-157)	WL	CB-157 [$^{13}\text{C}_{12}$]	WL
2,3',4,4',5,5'-hexachlorobiphenyl (CB-167)	WL	CB-167 [$^{13}\text{C}_{12}$]	WL
3,3',4,4',5,5'-hexachlorobiphenyl (CB-169)	WL	CB-169 [$^{13}\text{C}_{12}$]	WL
2,2',3,3',4,4',5-hexachlorobiphenyl (CB-170)	WL	CB-170 [$^{13}\text{C}_{12}$]	WL
2,2',3,4,4',5,5'-heptachlorobiphenyl (CB-180)	WL	CB-180 [$^{13}\text{C}_{12}$]	WL
2,3,3',4,4',5,5'-heptachlorobiphenyl (CB-189)	WL	CB-189 [$^{13}\text{C}_{12}$]	WL
2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl (CB-209)	CIL	CB-209 [$^{13}\text{C}_{12}$]	CIL

Supplementary Table S4. List of ingredients from mineral and vitamin mixes (Nofima)

Mineral mix ingredients (Nofima)	Vitamin mix ingredients (Nofima)
Wheat flour	Wheat flour
Magnesium sulphate-anhydrous	Vitamin A
Iron II sulphate	Vitamin E
Zinc sulphate	Vitamin K3 MNB
Manganese sulphate	Vitamin B1Thiamine mononitrate
Copper II sulphate	Vitamin B2 riboflavin
Calcium iodate	Vitamin B6 pyridoxine
Cobalt carbonate	Vitamin B12
Selenium	Niacinamide
-	Calcium-d-pantothenate
-	Biotin
-	Folic acid
-	Vitamin C phosphate
-	Vitamin D3