

Online supporting Material

Supplemental Table 1. Composition of pig milk replacer formula used in this study¹.

Component		Amount
		<i>/ kg powder</i>
Crude protein, <i>g</i>		250
Crude fat, <i>g</i>		130
Lactose, <i>g</i>		410
Ash, <i>g</i>		93.8
Energy, <i>kcal</i>		3,810
Amino Acids	Lysine, <i>g</i>	23.9
	DL-Methionine, <i>g</i>	5.80
Vitamins	Retinyl Acetate, <i>mg</i>	1.35
	Pyridoxine Hydrochloride, <i>mg</i>	5.74
	Cyanocobalamin, μ <i>g</i>	73.8
	Ascorbic Acid, <i>mg</i>	89.4
	D,L alpha-tocopherol acetate, μ <i>g</i>	15.0
	Menadione Sodium Bisulfite Complex, <i>mg</i>	3.83
	Cholecalciferol, μ <i>g</i>	7.50
	Thiamine Mononitrate, <i>mg</i>	5.55
	Riboflavin, <i>mg</i>	23.2
	Niacinamide, <i>mg</i>	30.7
	Folic acid, <i>mg</i>	2.90
	Calcium Pantothenate, <i>mg</i>	67.7
	Biotin, <i>mg</i>	0.83
	Choline Chloride, <i>g</i>	2.34
Mineral	Calcium, <i>g</i>	10.5
	Phosphorus, <i>g</i>	10.1
	Sodium, <i>g</i>	9.50
	Magnesium, <i>g</i>	1.00
	Potassium, <i>g</i>	21.9
	Cobalt, <i>mg</i>	1.05
	Copper, <i>mg</i>	12.0
	Iron, <i>mg</i>	105
	Manganese, <i>mg</i>	29.5
	Zinc, <i>mg</i>	122
	Selenium, <i>mg</i>	0.30

¹ Advance Liqui-wean, Milk Specialties, Dundee IL

Supplemental Table 2. Real time PCR primers used in this study.

Target group	Primer	Sequence (5'-3')	Annealing temperature, °C	Reference
All bacteria	Uni331F	TCCTACGGGAGGCAGCAGT	60	28
	Uni797R	GGACTACCAGGGTATCTATCCTGTT		
<i>Clostridium</i> cluster IV	Sg-Clept-F	GCACAAGCAGTGGAGT	50	31
	Sg-Clept-R3	CTTCCTCCGTTTTGTCAA		
<i>Clostridium</i> cluster XIVa	g-Ccoc-F	AAATGACGGTACCTGACTAA	50	31
	g-Ccoc-R	CTTTGAGTTTCATTCTTGCGAA		
<i>Bifidobacterium</i> spp.	Bif164F	GGGTGGTAATGCCGGATG	60	30
	Bif662R	CCACCGTTACACCGGGAA		
<i>Lactobacillus</i> spp.	LacF	AGCAGTAGGGAATCTTCCA	58	29
	LacR	CACCGCTACACATGGAG		
DGGE Band_5	BV-1	GCATCATGAGTCCGCATGTTC	55	32
	BV-2	TCCATACCCGACTTTATTCCTT		

Supplemental Table 3. The composition of isolated human milk oligosaccharides used in this study¹⁻³.

HMO	of total HMO, %
Fucosylated	56.1
LNT/LNnT	16.1
LNFP I, III, V	8.87
MFLNH III/MFLNH I	6.69
2'FL	5.83
LNH/(p-LNnH)	4.40
MFpLNH IV	3.27
LNnH	2.76
DFLNHa	2.13
DFpLNH II	1.87
IFLNH 3	1.76
DFLNHb	1.76
Sialylated	31.6
LSTc/LSTb	9.30
6'SL	2.09
MSLNnH	2.04
SLNH	1.77
LSTa	1.07
3'SL	1.95
Fucosylated and Sialylated	12.4
FS-LNnH I	4.38
F-LSTc	2.31
FS-LNH III	2.17

¹ Only the major oligosaccharides that account for more than 1% of total HMO are listed.

² As determined by HPLC-Chip TOF MS (17).

³ Abbreviations: DFLNH: Difucosyllacto-*N*-hexaose; DFpLNH: Difucosyl-para-lacto-*N*-hexaose; 2'FL: 2'-Fucosyllactose; FS-LNH: Fucosyl-sialyl-lacto-*N*-hexaoses; FS-LNnH: Fucosyl-sialyl-lacto-*N*-neo-hexaoses; F-LST: Fucosyl-sialyllacto-*N*-tetraose; HMO: human milk oligosaccharides; IFLNH 3: isomer 3 fucosyl-paralacto-*N*-hexaose; LNFP: Lacto-*N*-fucopentaose; LNH: lacto-*N*-hexaose; LNnH: Lacto-*N*-neo-hexaose; LNnT: Lacto-*N*-neotetraose; LNT: Lacto-*N*-tetraose; LST: Sialyllacto-*N*-tetraose; MFLNH: Monofucosyllacto-*N*-hexaose; MFpLNH: Monofucosyl-para-lacto-*N*-hexaose; MSLNnH: Monosialyllacto-*N*-neo-hexaose; 3'SL: 3'-Sialylactose; 6'SL: 6'-Sialylactose; SLNH: *sialylated* lacto-*N*-hexaose.