



### Milk Composition Standards

Milk	Code	Description	Components	Monthly Production
Raw Milk	LC	◆ 12 to 14 raw milk standards, fat value from 1 to 5%. 100 ml per sample	Fat, TP*, TS, LA	1 <sup>st</sup> and 2 <sup>nd</sup>
Raw Milk with Analyzed Crude Protein	LC+	◆ 12 to 14 raw milk standards, fat value from 1 to 5%. Includes crude protein reference values. 100 ml per sample	Fat, TP, CP, TS, LA	2 <sup>nd</sup> shipment
Fatty Acid Profile	ProAG	◆ 8 raw milk standards, fat value from 3.0 to 6.5%. 100 ml per sample	Fat, Fatty Acid Profile	temporarily unavailable
Urea	UR	◆ 6 raw milk standards, urea value from 8 to 20 mg/dL. 100 ml per sample	Urea	2 <sup>nd</sup> shipment
Casein	CN	◆ 8 raw milk standards. Includes casein and protein reference values. 100 ml per sample	Fat, TP, CP, TS, LA, Casein	2 <sup>nd</sup> shipment
Processed Milk	HO	◆ 6 processed milk standards, fat value from 0 to 3.8%. 100 ml per sample	Fat, CP, TS, LA	1 <sup>st</sup> shipment
Processed Milk with Analyzed True Protein	HO+	◆ 6 processed milk standards, fat value from 0 to 3.8%. Includes true protein reference values. 100 ml per sample	Fat, TP, CP, TS, LA	1 <sup>st</sup> shipment
Processed Milk and Cream Combo	MAC	◆ 4 processed milk and 3 cream standards, approx. 0, 1, 2, 3.25, 10, 18, and 35% fat content. 100 ml per sample	Fat, CP, TS	1 <sup>st</sup> shipment

\*Includes calculated crude protein  
TP: true protein, CP: crude protein, TS: total solids, LA: lactose

The shipping of calibration samples is paid for by the customer.



### Cream Composition Standards

<b>Creams</b>	<b>Code</b>	<b>Description</b>	<b>Components*</b>	<b>Monthly Production</b>
<b>Processed Cream - 4</b>	<b>CR-A</b>	◆ 4 cream standards, approx. 10, 15, 30 and 35% fat. 100 ml per sample	Fat, TS	1 <sup>st</sup> shipment
<b>Processed Cream - 4</b>	<b>CR-D</b>	◆ 4 cream standards, approx. 22, 26, 30, 35% fat. 100 ml per sample	Fat, TS	1 <sup>st</sup> shipment
<b>RAW Cream- 4</b>	<b>CR-E</b>	◆ 4 raw cream standards, approx. 29, 32, 35, 42% fat. 100 ml per sample	Fat, TS	1 <sup>st</sup> shipment
<b>Cream - 4 with crude protein</b>	<b>CR- A, D, E Prot.</b>	◆ Cream A, D, or E kit. Includes crude protein reference values. 100 ml per sample	Fat, CP, TS	1 <sup>st</sup> shipment
<b>Processed Cream - 8</b>	<b>CR-B</b>	◆ 8 cream standards, approx. 5 to 35% fat. 100 ml per sample	Fat, TS	1 <sup>st</sup> shipment
<b>Processed Cream - 8 with crude protein</b>	<b>CR-B Prot.</b>	◆ Cream B kit with protein content. Includes crude protein reference values. 100 ml per sample	Fat, CP, TS	1 <sup>st</sup> shipment
<b>Individual Cream</b>	<b>CR Ind.</b>	◆ Individual sample of one cream standard, chosen from our available cream percentages. 100 ml per sample	Fat, TS	1 <sup>st</sup> shipment
<b>Individual Cream with crude protein</b>	<b>CR Ind. Prot.</b>	◆ Individual sample of one cream standard. Includes crude protein reference values. 100 ml per sample	Fat, CP, TS	1 <sup>st</sup> shipment

*CP: crude protein, TS: total solids*

The shipping of calibration samples is paid for by the customer.



### Control Samples

Control Samples	Code	Description	Components	Monthly Production
<b>Raw Milk Control Sample</b>	<b>LC-C</b>	♦ individual raw milk control for composition between 3.7-4.5% fat. 45 ml per sample	Fat, TP*, TS, LA, CN	1 <sup>st</sup> and 2 <sup>nd</sup>
<b>BHB and Urea Control Sample</b>	<b>BU-C</b>	♦ individual raw milk control for BHB and urea. 45 ml per sample	Urea, BHB	1 <sup>st</sup> and 2 <sup>nd</sup>
<b>Fatty Acid Control Sample</b>	<b>AG-C</b>	♦ individual raw milk control for fatty acids. 45 ml per sample	Fat, Fatty Acid Profile	temporarily unavailable
<b>Processed Milk Control Sample</b>	<b>HO-C</b>	♦ individual processed milk control 3.25%. 45 ml per sample	Fat, TP, TS, LA	1 <sup>st</sup> shipment
<b>Mozzarella Cheese Control Sample</b>	<b>FR-CM</b>	♦ individual mozzarella cheese control. 40 g per sample	Fat, CP, Moisture	2 to 4 batches per year
<b>Cheddar Cheese Control Sample</b>	<b>FR-CC</b>	♦ individual cheddar cheese control. 40 g per sample	Fat, CP, Moisture	2 to 4 batches per year

*\*Includes calculated crude protein*

*TP: true protein, CP: crude protein, TS: total solids, LA: lactose*

The shipping of calibration samples is paid for by the customer.



### Raw Milk Somatic Cell Count Standards

3 Standards:           Low           75,000 – 250,000 cells/ml  
                                   Medium       300,000 – 600,000 cells/ml  
                                   High           650,000 – 950,000 cells/ml

Product	Number of Sets Ordered per Month	Monthly Production
<b>3 samples</b>	♦ 1 kit of 3 vials (one of each standard). 35-40 ml per vial	1 <sup>st</sup> shipment
<b>Quarter Set</b>	♦ 1 quarter set of 15 vials (5 vials per standard). 35-40 ml per vial	1 <sup>st</sup> shipment
<b>Half Set</b>	♦ 1 half set of 30 vials (10 vials per standard). 35-40 ml per vial	1 <sup>st</sup> shipment
<b>Full Set</b>	♦ 1 full set of 60 vials (20 vials per standard). 35-40 ml per vial	1 <sup>st</sup> shipment
<b>Full Sets (2 or more)</b>	♦ Bundle of full sets of 60 vials each (20 vials per standard). Price per set. 35-40 ml per vial	1 <sup>st</sup> shipment

The shipping of calibration samples is paid for by the customer.



### Component Analysis - Chemistry

Component	Method of analysis
Fat	♦ Gravimetric (Roese-Gottlieb)
Fat - Cheese	♦ Gravimetric (Roese-Gottlieb)
Crude Protein	♦ Kjeldahl
Crude Protein – Powder	♦ Kjeldahl
True Protein	♦ Kjeldahl
Casein	♦ Kjeldahl
Total Solids/Moisture	♦ Forced-air Oven
Lactose	♦ HPLC
BHB	♦ Continuous Flow Analysis
Urea	♦ Continuous Flow Analysis
Fatty Acid Profile	♦ Gas Chromatography
Salt	♦ Titration (Modified Mohr)
Special Preparation Fee	--
<b>Priority analysis surcharge (&lt;48h)</b>	<b>+100% analysis cost</b>



### Pathogen Detection – Food Microbiology

Pathogen	Method of analysis
<i>Listeria monocytogenes</i> detection (sponge/swab) <sup>1</sup>	MFHPB-30
<i>Listeria monocytogenes</i> detection (food 25g) <sup>1</sup>	MFHPB-30
<i>Listeria monocytogenes</i> detection (food 125g) <sup>1</sup>	MFHPB-30
<sup>1</sup> <i>Listeria monocytogenes</i> confirmation	--
<i>Salmonella spp.</i> detection (sponge/swab) <sup>1</sup>	MFHPB-20
<i>Salmonella spp.</i> detection (food 25g) <sup>1</sup>	MFHPB-20
<i>Salmonella spp.</i> detection (food 125g) <sup>1</sup>	MFHPB-20
<i>Salmonella spp.</i> detection (feed 375g) <sup>1</sup>	MFHPB-20
<sup>1</sup> <i>Salmonella spp</i> confirmation	--
Total aerobic bacteria enumeration	MFHPB-33
Coliform enumeration only	MFHPB-34
<i>E.coli</i> and Coliform enumeration	MFHPB-34
<i>Staphylococcus aureus</i> enumeration <sup>1</sup>	MFLP-21
<sup>1</sup> <i>Staphylococcus aureus</i> confirmation	--
Sponge or swab composite fee	--
Food composite fee	--

<sup>1</sup> An additional fee per sample is charged when biochemical confirmation steps must be undertaken following the observation of presumptive colonies. Prior communication will be sent to advise you that these steps must be taken to confirm presence of the targeted pathogen.



### Pathogen Detection – Environmental Microbiology

Pathogen	Method of analysis
Enumeration of Total Coliforms, E. coli, and Enterococci (Drinking Water)	Membrane filtration (CEAEQ – MA. 700)
Raw milk microbiological evaluation ( <i>Standard Plate Count + Preliminary Incubation Count + Laboratory Pasteurisation Count</i> )	Bacterial culture
Raw milk microbiological evaluation, including coliforms and Gram- non-coliforms	Bacterial culture

### Supplies Available for Purchase

Consumables and reagents
*Sponge for large surfaces (per unit)
*Small area swab (per unit)
*Sterile sampling jar (per unit)
*Sterile sampling bag (per unit)
Brotab Preservative (2000 pills)
Box of 500 empty lockcap vials



### Analyses available through a subcontractor

Component	Method of analysis
Vitamin A*	◆ HPLC
Vitamin C*	◆ HPLC
Vitamin D*	◆ HPLC
Sugar Profile*	◆ HPLC
Metals/Minerals* (Fe, Ca, Na, K, etc)	◆ ICP-MS
Ash*	◆ Gravimetric
Density*	◆ Pycnometer
Viscosity*	◆ Brookfield
Total Dietary Fibers*	◆ Enzymatic
Sorbic Acid*	◆ Liquid Chromatography
Alkaline Phosphatase*	◆ Colorimetric
Yeast and Mold*	◆ MFHPB-22
Nutritional Label Service*	