University *of Ljubljana*
Biotechnical Faculty
Department of Animal Science

INŠTITUT ZA MLEKARSTVO IN PROBIOTIKE
INSTITUTE OF DAIRY SCIENCE & PROBIOTICS

CATALOGUE OF SERVICES

Reference materials

2024

RAW MILK

(preserved with Bronopol® 0.02 %, excluding SET 3A)

SET 1: Control or calibration of MID-IR instruments
Parameter**:** **Fat (g/100 g)**; approximate range 2,5 – 5,5 g/100 g
Proteins (g/100 g); approximate range 2,5 – 4,5 g/100 g
Lactose anhidrid **(g/100 g)**; approximate range 4,0 – 5,5 g/100 g
Total solids (g/100g); approximate range 10,0 – 15,0 g/100 g

Standard values determined by method:
Fat: Gravimetric, Röse Gottlieb (ISO 1211/IDF 1)
Proteins: Kjeldahl (ISO 8968-3/IDF 20-3)
Lactose: Liquid chromatography (ISO 22662/IDF 198)
Total solids: Gravimetric, drying at 102°C (ISO 6731/IDF 21)

Number of samples: 10
Sample volume: 60 ml

	With registration / month:
Price for SET 1:	120,00 €
Price for extra SET 1:	70,00 €

SET 2: Control or calibration of different instruments
Parameter: **Urea (mg/100 ml)**; approximate range 10 - 60 mg/100 ml

Standard values determined by method: Differential pH-metry (ISO 14637/IDF 195)

Number of samples: 7
Sample volume: 60 ml

	With registration / month:
Price for SET 2:	100,00 €
Price for extra SET 2:	60,00 €

SET 3A: Calibration/control of different instruments
Parameter: **Freezing point (°C) - NON-PRESERVED SAMPLES**
approximate range -0,480 do -0,550 °C

Standard values determined by method: Cryoscopy (ISO 5764/IDF 108)

Number of samples: 10
Sample volume: 60 ml

	With registration / month:
Price for SET 3A:	85,00 €
Price for extra SET 3A:	45,00 €

SET 3B: Control of different instruments
Parameter: **Freezing point (°C) – PRESERVED SAMPLES**
approximate range -0,480 do -0,550 °C

Standard values determined by method: Cryoscopy (ISO 5764/IDF 108)

Number of samples: 10
Sample volume: 60 ml

	With registration / month:
Price for SET 3B:	85,00 €
Price for extra SET 3B:	45,00 €

RAW MILK

(preserved with Bronopol® 0.02 %)

SET 4: Enumeration of somatic cells by fluoro-opto-electronic counters
Parameter: **Somatic cells/ml**; approximate range 50.000 – 1.500.000 SC/ml

Standard values determined by method: fluoro-opto-electronic method (ISO 13366-2/IDF 148-2)

Number of samples: 5
Sample volume: 60 ml

	With registration / month:
Price for SET 4:	100,00 €
Price for extra SET 4:	50,00 €

PASTEURISED MILK

(preserved with Bronopol® 0.02 %)

SET 5: Control or calibration of IR instruments
Parameter**:** **Fat (g/100 g)**; approximate range 0,5 – 3,9 g/100 g
Protein (g/100 g); approximate range 3,4 – 3,7 g/100 g
Lactose anhidrid **(g/100 g)**; approximate range 4,6 – 4,8 g/100 g
Total solids (g/100 g); approximate range 10,0 – 13,0 g/100 g

Standard values determined by method: IR spectrometry (ISO 9622/IDF 141)

Number of samples: 10
Sample volume: 60 ml

	With registration / month:
Price for SET 5:	125,00 €
Price for extra SET 5:	65,00 €

PASTEURISED CREAM

(preserved with Bronopol® 0.02 %)

SET 6: Control or calibration of IR instruments
Parameter**:** **Fat (g/100 g)**; approximate range 20,0 – 40,0 g/100 g
Proteins (g/100 g); approximate range 2,0 – 3,0 g/100 g
Total solids (g/100 g); approximate range 30,0 – 45,0 g/100 g

Standard values determined by method:
Fat: Gravimetry, Röse Gottlieb (ISO 1211/IDF 1)
Proteins: Kjeldahl (ISO 8968-3/IDF 20-3)
Total solids: Gravimetry, drying at 102°C (ISO 6731/IDF 21)

Number of samples: 3
Sample volume: 60 ml

	With registration / month:
Price for SET 6:	65,00 €

SENSORY ANALYSIS

SET 7: recognition of basic tastes
Parameter: **basic tastes** (salty, bitter, sweet, sour)

Number of samples: 5
Sample volume: samples for preparation testing solutions, prepared solutions are sufficient to carry out the analysis of 5 assessors

	With registration:
Price for SET 7:	100,00 €
Price for extra SET 7:	50,00 €

Dispatch dates of RM 2024

SET	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
1 **2** **3A** **3B** **4** **5** **7**	9.	13.	5.	2.	7.	4.	2.	6.	3.	1.	5.	3.
6			5.						3.			

Number of extra SETs is not limited.

VAT is not included in the prices.

Samples "***Without annual registration***" order at least **one week before the date of the dispatch.**

Reference values of RM samples will be published on the website http://www.bf.uni-lj.si/en/iml-pro/.

Costs of transport and documentation (Veterinary certificate for export, invoices, etc.) are not included in the prices.

Samples can be ordered also **between dispatch dates** (**calibration, control, service of instruments,** etc.) but at least **one week in advance** (prices by agreement).

Please send us completed **registration form** (Page 4) to

E-mail: borut.kolenc@bf.uni-lj.si

before 26th December 2023

Preparation of catalogue: Borut Kolenc

BORUT KOLENC Digitalno podpisal BORUT KOLENC Datum: 2024.07.12 11:15:08 +02'00'

Head of laboratory: dr. Petra Mohar Lorbeg

PETRA MOHAR LORBEG Digitalno podpisal PETRA MOHAR LORBEG Datum: 2024.07.12 11:24:34 +02'00'

ANNUAL REGISTRATION FORM

REFERENCE METERIALS

2024

Name and DELIVERY/INVOICING address:_____

_____

Contact person:_____

Phone:_____ E-mail:_____

	INDICATE THE NUMBER OF SETs/month											
	JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
SET 1 – MID-IR spectroscopy fat, protein, lactose												
extra SET 1												
SET 2 – urea												
extra SET 2												
SET 3A – freezing point (NON-PRESERVED SAMPLES)												
extra SET 3A												
SET 3B – freezing point (PRESERVED SAMPLES)												
extra SET 3B												
SET 4 – enumeration of somatic cells												
extra SET 4												
SET 5 – pasteurised milk												
extra SET 5												
SET 6 – pasteurised cream												
extra SET 6												
SET 7 – sensory analysis												
extra SET 7												
Please declare **Shipping/delivery method** □ By post □ Personal take-over □ Other (by agreement)												

Date: Signature:

_____ _____