



INŠTITUT ZA MLEKARSTVO IN PROBIOTIKE  
INSTITUTE OF DAIRY SCIENCE & PROBIOTICS

**CATALOGUE OF SERVICES**

***Reference materials***

**2023**

**RAW MILK**

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

**SET 1:**

Parameter:

Control or calibration of MID-IR instruments

**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:	110,00 €
Price for extra SET 1:	65,00 €

**SET 2:**

Parameter:

Control or calibration of different instruments

**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:	95,00 €
Price for extra SET 2:	50,00 €

**SET 3A:**

Parameter:

Calibration/control of different instruments

**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:	75,00 €
Price for extra SET 3A:	40,00 €

**SET 3B:**

Parameter:

Control of different instruments

**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:	75,00 €
Price for extra SET 3B:	40,00 €

**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:	90,00 €
Price for extra SET 4:	45,00 €

**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 2023**

<b>SET</b>	<b>jan</b>	<b>feb</b>	<b>mar</b>	<b>apr</b>	<b>may</b>	<b>jun</b>	<b>jul</b>	<b>aug</b>	<b>sep</b>	<b>oct</b>	<b>nov</b>	<b>dec</b>
<b>1</b>												
<b>2</b>												
<b>3A</b>												
<b>3B</b>	10.	31.1.	7.	4.	9.	6.	4.	1.	5.	3.	7.	5.
<b>4</b>												
<b>5</b>												
<b>7</b>												
<b>6</b>			7.						5.			

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 [www.iml-pro.si](http://www.iml-pro.si).

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](mailto:borut.kolenc@bf.uni-lj.si)

**before 23<sup>th</sup> December 2022**

Preparation of catalogue: Borut Kolenc

Head of laboratory: dr. Petra Mohar Lorbeg

**ANNUAL REGISTRATION FORM****REFERENCE MATERIALS****2023****Name and DELIVERY/INVOICING address:** \_\_\_\_\_

\_\_\_\_\_

**Contact person:** \_\_\_\_\_

Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Date: \_\_\_\_\_

Signature: \_\_\_\_\_