



## TRANSASIA BIOMEDICALS LIMITED

### CALIBRATION CERTIFICATE:

Ref No. TSD/AS/20

Date: 21<sup>th</sup> March 2023

**CENTRAL AYURVEDA RESEARCH INSTITUTE  
BORSOJAI, BELTOLA  
GUWAHATI, DIST: KAMRUP, ASSAM  
Pin-781028**

Dear Sir/ Madam,

As desired by you please find herewith the Calibration report

1. Year of manufacturing: January 2022 Sr No. 2002919
2. Range of the instrument: Optical density Linear form 0-3.5 A
3. Precision & Accuracy study on EM-200
4. Date of calibration: 21<sup>th</sup> March 2023
5. Date of next Calibration: 21<sup>th</sup> March 2024

Precision with Potassium Dichromate ( $K_2Cr_2O_7$ )

Reagent / Sample ratio -

Cup Position	Replicates	Absorbance (X)	SD	CV
Cup 1	20	1.2658 OD	0.01	0.68%
Cup 2	20	1.2659 OD	0.01	0.72%
Cup 3	20	1.2663 OD	0.01	0.63%

**Accuracy study with Potassium Dichromate ( $K_2Cr_2O_7$ ) in comparison with EM-200**

Wavelengths scan on Referral Spectrophotometer for Potassium Dichromate ( $K_2Cr_2O_7$ )

Wavelength	Spectrophotometer OD	
	Low	High
335	0.2977	1.2313
336	0.3097	1.3250
337	0.2980	1.2352





341	0.3010	1.2520
342	0.2870	1.2130
343	0.2950	1.3249
344	0.2940	1.2050
345	0.3015	1.2462

### Test of Potassium Dichromate (K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>) on EM-200

Pipetted / Measured by EM-200		Manually Pipettes EM		Manually pipetted & read in Autospan	
Low	High	Low	High	Low	High
0.2977	1.2352	0.3010	1.3010	0.2464	1.2461

This instrument is manufactured in accordance with the European law in force, in particular to "Electricity Safety" EN 610101 and "Electromagnetic Compatibility " EN 61326 Standards.

Pressure	Ideal	Actual
	0.9 bar	0.89 bar
Lamp Voltage	12 V	12.07V
Temperature	37° C	37° C

Photometer Calibration Check	Ok
Cuvette Blank Check	Ok

Wavelength	Off Set(Volts)	Abs
340	1.9188	0.2059
405	1.9489	0.1927
505	2.0427	0.1515
546	2.0834	0.1346
578	2.1004	0.1273
600	2.0866	0.1333
660	2.0711	0.1395
700	2.0632	0.1431





**The Calibrator used: Multical**  
**Lot No: 2206133**  
**Expiry Date: December 2023**

**The Control used: Erba Norm & Erba Path**  
**Erba Norm: S062243, Exp: November 2024**  
**Erba Path: S062244, Exp: November 2024**

The instrument does photometer check before each batch of tests is run. It will give an error message if the photometer test fails and it will not run any samples.

Thanking you and assuring of our prompt attention at all times.

Yours faithfully,  
For **TRANSASIA BIO-MEDICALS LTD.**



**REGIONAL SERVICE MANAGER**



**Sr Application Specialist**



## TRACEABILITY

**XL MULTICAL**
**Product Code: XSYS0034**
**Lot: 2206133**

Analyt	Reference Methods / Reference Material	Calibrator value	Uncertainty <sup>1</sup>	Unit
Albumin	CRM 470	3.52	0.044	g/dl
ALP	Original formulation IFCC	262	1.59	U/l
ALT/SGPT	Original formulation IFCC (1985)	88.8	1.24	U/l
AST/SGOT	Original formulation IFCC (1985)	100	0.86	U/l
Amylase	Original formulation IFCC (1998)	184	1.68	U/l
Bilirubin Direct (Walter & Gerarde)	Reference method accor. Jendrassik-Gróf	2.13	0.012	mg/dl
Bilirubin Direct (DCA)	Reference method accor. Jendrassik-Gróf	2.29	0.013	mg/dl
Bilirubin Total (Walter & Gerarde)	Reference method accor. Jendrassik-Gróf	4.54	0.095	mg/dl
Bilirubin Total (DCA)	Reference method accor. Jendrassik-Gróf	4.30	0.090	mg/dl
Calcium	Atomic absorption	10.3	0.064	mg/dl
Chloride	Coulometrie	100	4.64	mmol/l
Cholesterol	ID-MS	155	1.61	mg/dl
CK	Original formulation IFCC (1991)	333	1.82	U/l
CK MB	Original formulation IFCC with immunoinhibition (2002)	429	23.2	U/l
Creatinine (Jaffé)	ID-MS	3.91	0.038	mg/dl
Creatinine (Enz.)	ID-MS	3.84	0.037	mg/dl
GGT	Original formulation Persijn v.d. Slik (1976)	111	1.05	U/l
Glucose	ID-MS	200	1.57	mg/dl
LDH-P	Reference method	517	3.83	U/l
Lipase	Original formulation IFCC	99.4	1.88	U/l
Magnesium	Atomic absorption	2.72	0.021	mg/dl
Phosphorus	Primary reference material	5.49	0.057	mg/dl
Total Protein	SRM 927e	5.04	0.044	g/dl
Triglycerides (single reagent)	SRM 909c	141	1.37	mg/dl
Triglycerides (two reagents)	SRM 909c	140	1.36	mg/dl
Urea	SRM 909c	100	1.04	mg/dl
Uric Acid	ID-MS	5.43	0.034	mg/dl

<sup>1</sup> Expanded uncertainty, k = 2

<sup>2</sup> CRM = Certified reference material. European

<sup>3</sup> SRM = Standard reference material

<sup>4</sup> ID-MS = Isotope dilution – mass spectrometry

Date: 05.12.2022

