



Date: 11<sup>th</sup> May 2023

**Redcliffe Diagnostic Lab,  
Jalandhar.**

Dear Sir,

As desired by you please find enclosed herewith the Calibration report

1. Instrument & Serial No.: **XL 640, Serial No. 640489.**
2. Range of the instrument: Optical density Linear form 0-3.5 A
3. Precision & Accuracy study on XL-640 done on May 11, 2023.
4. Validity of this Calibration Certificate is till **May 10, 2024.**

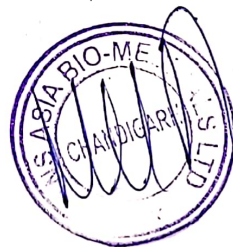
Precision with Potassium Dichromate ( $K_2Cr_2O_7$ )

Reagent / Sample ratio -

Cup Position	Replicates	Absorbance (X)	SD	CV
Cup 1	20	1.5410 OD	0.0056	0.42%
Cup 2	20	1.5585 OD	0.0054	0.41 %
Cup 3	20	1.5436 OD	0.0049	0.40%

**Accuracy study with Potassium Dichromate ( $K_2Cr_2O_7$ ) in comparison with EM-360**

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



Contd.....2



Wavelength	Spectrophotometer OD	
	Low	High
335	0.1891	1.7213
336	0.1923	1.7622
337	0.1988	1.8093
338	0.1999	1.8522
339	0.2040	1.8678
340	0.2063	1.8923
341	0.2109	1.9139
342	0.2163	1.9444
343	0.2211	1.9533
344	0.2289	1.9819
345	0.2314	2.0124



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## Test of Potassium Dichromate ( $K_2Cr_2O_7$ ) on EM-360

Pipetted / Measured by EM 360		Manually Pipettes EM		Manually pipetted & read in Autospan	
Low	High	Low	High	Low	High
0.2004	1.8736	0.1989	1.8879	0.2044	1.7583

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.

Item	Ideal	Actual
Pressure	0.9 bar	0.8 bar
Lamp Voltage	12 V	12.01 V
Temperature	37° C	37.0 ° C

Photometer Calibration Check	Ok
Cuvette Blank Check	Ok

Wavelength	Off Set	Gain
340	NA	95
376	NA	118
415	NA	129
450	NA	133
480	NA	138
505	NA	130
546	NA	122
570	NA	129
600	NA	131
660	NA	123
700	NA	126
750	NA	148

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UNMATCHED SERVICE  
SINCE 1979...

Bio-Medicals Ltd., SCO No. 95, 1st Floor, Sector 44C, Chandigarh - 160047  
0172-4643837 Email : nz3@transasia.co.in  
33110MH1985PLC036198

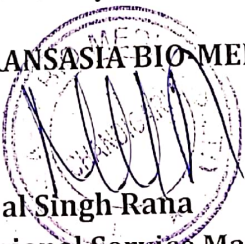
-4-

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.**



**Rashpal Singh Rana**  
Sr. Regional Service Manager  
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*Rana*

# Result Reprint

Report Type : Controls

28-Dec-2023

Consumable: BIODER L1

Sr #	Lot #	Consumable	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
1	89731	BIODER L1	Na	136.50 mmol/L	-2SD	0	28-Dec-2023 10:13:05	149.000	5.000	134 - 164
2	89731	BIODER L1	K	3.48 mmol/L	-2SD	0	28-Dec-2023 10:13:05	3.740	0.120	3.38 - 4.1
3	89731	BIODER L1	Cl	96.80 mmol/L		0	28-Dec-2023 10:13:05	97.500	3.300	87.6 - 107.4
4	89731	BIODER L1	SGPTD	27.7 U/L		279826	28-Dec-2023 10:15:51	26.500	1.800	21.1 - 31.9
5	89731	BIODER L1	SGOTD	40.7 U/L		279828	28-Dec-2023 10:16:08	41.900	2.800	33.5 - 50.3
6	89731	BIODER L1	ALPU	125 U/L	-1SD	279830	28-Dec-2023 10:16:27	143.000	10.000	113 - 173
7	89731	BIODER L1	GGT	57.1 U/L		279832	28-Dec-2023 10:16:45	60.800	4.100	48.5 - 73.1
8	89731	BIODER L1	PHOS	4.48 mg/dL	+3SD	279834	28-Dec-2023 10:17:03	3.680	0.180	3.14 - 4.22
9	89731	BIODER L1	BIDD	0.55 mg/dL		279836	28-Dec-2023 10:17:21	0.520	0.040	0.4 - 0.64
10	89731	BIODER L1	BIT	1.17 mg/dL		279838	28-Dec-2023 10:17:39	1.280	0.110	0.95 - 1.61
11	89731	BIODER L1	UREA	35.3 mg/dL		279840	28-Dec-2023 10:17:57	34.600	1.700	29.5 - 39.7
12	89731	BIODER L1	CRENZ	1.65 mg/dL		279842	28-Dec-2023 10:18:15	1.630	0.110	1.3 - 1.96
13	89731	BIODER L1	GLU	87.4 mg/dL		279844	28-Dec-2023 10:18:33	85.200	4.400	72 - 98.4
14	89731	BIODER L1	TRIG	159.2 mg/dL		279846	28-Dec-2023 10:18:51	160.000	8.000	136 - 184
15	89731	BIODER L1	CHOL	237 mg/dL		279848	28-Dec-2023 10:19:09	237.000	12.000	201 - 273
16	89731	BIODER L1	HDLC	89.0 mg/dL	+1SD	279851	28-Dec-2023 10:19:36	79.200	5.300	63.3 - 95.1
17	89731	BIODER L1	UA	2.8 mg/dL	-3SD	279853	28-Dec-2023 10:19:54	5.210	0.260	4.43 - 5.99

Print Date 28-Dec-2023



## Result Reprint

Report Type : Controls

28-Dec-2023

Consumable: BIORED L1

Sr #	Lot #	Consumable	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
18	89731	BIORED L1	LDL	162.3 mg/dL	+1SD	279855	28-Dec-2023 10:20:12	145.000	10.000	115 - 175
19	89731	BIORED L1	CA	9.7 mg/dL		279857	28-Dec-2023 10:20:30	9.350	0.470	7.94 - 10.76
20	89731	BIORED L1	ALBD	4.47 g/dL		279859	28-Dec-2023 10:20:48	4.250	0.220	3.59 - 4.91
21	89731	BIORED L1	PRO	6.05 g/dL	-1SD	279861	28-Dec-2023 10:21:06	6.530	0.330	5.54 - 7.52
22	89731	BIORED L1	Na	134.70 mmol/L	-2SD	0	28-Dec-2023 10:43:53	149.000	5.000	134 - 164
23	89731	BIORED L1	K	3.40 mmol/L	-2SD	0	28-Dec-2023 10:43:53	3.740	0.120	3.38 - 4.1
24	89731	BIORED L1	Cl	96.30 mmol/L		0	28-Dec-2023 10:43:53	97.500	3.300	87.6 - 107.4
25	89731	BIORED L1	PHOS	3.50 mg/dL		279872	28-Dec-2023 10:50:58	3.680	0.180	3.14 - 4.22
26	89731	BIORED L1	UA	4.3 mg/dL	-3SD	279876	28-Dec-2023 10:51:34	5.210	0.260	4.43 - 5.99
27	89731	BIORED L1	FE	237.0 µg/dL	+2SD	279887	28-Dec-2023 10:58:11	205.000	14.000	163 - 247
28	89731	BIORED L1	UA	4.9 mg/dL	-1SD	279890	28-Dec-2023 11:44:40	5.210	0.260	4.43 - 5.99
29	89731	BIORED L1	FE	224.6 µg/dL	+1SD	279891	28-Dec-2023 12:37:42	205.000	14.000	163 - 247

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## Result Reprint

Report Type : Controls

28-Dec-2023

Consumable: BIORED L2

Sr #	Lot #	Consumable	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
1	89732	BIORED L2	Na	122.50 mmol/L	-1SD	0	28-Dec-2023 10:13:53	127.000	4.000	115 - 139
2	89732	BIORED L2	K	5.24 mmol/L	-1SD	0	28-Dec-2023 10:13:53	5.580	0.200	4.98 - 6.18
3	89732	BIORED L2	Cl	87.30 mmol/L		0	28-Dec-2023 10:13:53	84.700	2.800	76.3 - 93.1
4	89732	BIORED L2	SGPTD	105.9 U/L	+1SD	279827	28-Dec-2023 10:15:59	95.100	6.300	76.2 - 114
5	89732	BIORED L2	SGOTD	215.9 U/L		279829	28-Dec-2023 10:16:17	204.000	14.000	162 - 246
6	89732	BIORED L2	ALPU	555 U/L		279831	28-Dec-2023 10:16:36	571.000	38.000	457 - 685
7	89732	BIORED L2	GGT	164.1 U/L		279833	28-Dec-2023 10:16:54	165.000	11.000	132 - 198
8	89732	BIORED L2	PHOS	7.84 mg/dL	+2SD	279835	28-Dec-2023 10:17:12	6.900	0.350	5.85 - 7.95
9	89732	BIORED L2	BIDD	1.33 mg/dL		279837	28-Dec-2023 10:17:30	1.370	0.110	1.04 - 1.7
10	89732	BIORED L2	BIT	4.91 mg/dL		279839	28-Dec-2023 10:17:48	4.900	0.410	3.67 - 6.13
11	89732	BIORED L2	UREA	99.9 mg/dL		279841	28-Dec-2023 10:18:06	102.000	5.000	87 - 117
12	89732	BIORED L2	CRENZ	5.18 mg/dL		279843	28-Dec-2023 10:18:24	5.420	0.360	4.34 - 6.5
13	89732	BIORED L2	GLU	290.0 mg/dL		279845	28-Dec-2023 10:18:42	294.000	15.000	249 - 339
14	89732	BIORED L2	TRIG	83.4 mg/dL		279847	28-Dec-2023 10:19:00	87.300	4.480	73.86 - 100.74
15	89732	BIORED L2	CHOL	98 mg/dL	-1SD	279849	28-Dec-2023 10:19:18	104.000	5.000	89 - 119
16	89732	BIORED L2	HDLC	25.8 mg/dL		279852	28-Dec-2023 10:19:45	27.400	1.800	22 - 32.8
17	89732	BIORED L2	UA	9.4 mg/dL	-2SD	279854	28-Dec-2023 10:20:03	10.700	0.500	9.2 - 12.2

Print Date

28-Dec-2023

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## Result Reprint

Report Type : Controls

28-Dec-2023

Consumable: BIORED L2

Sr #	Lot #	Consumable	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
18	89732	BIORED L2	LDL	74.5 mg/dL		279856	28-Dec-2023 10:20:21	70.700	4.700	56.6 - 84.8
19	89732	BIORED L2	CA	11.1 mg/dL	-1SD	279858	28-Dec-2023 10:20:39	12.200	0.600	10.4 - 14
20	89732	BIORED L2	ALBD	2.70 g/dL		279860	28-Dec-2023 10:20:57	2.720	0.140	2.3 - 3.14
21	89732	BIORED L2	PRO	3.66 g/dL	-2SD	279862	28-Dec-2023 10:21:15	4.230	0.210	3.6 - 4.86
22	89732	BIORED L2	PHOS	7.01 mg/dL		279873	28-Dec-2023 10:51:07	6.900	0.350	5.85 - 7.95
23	89732	BIORED L2	UA	10.2 mg/dL		279878	28-Dec-2023 10:51:52	10.700	0.500	9.2 - 12.2
24	89732	BIORED L2	PRO	4.23 g/dL		279881	28-Dec-2023 10:52:19	4.230	0.210	3.6 - 4.86
25	89732	BIORED L2	FE	72.0 µg/dL	+3SD	279888	28-Dec-2023 10:58:20	56.700	3.800	45.3 - 68.1
26	89732	BIORED L2	FE	64.3 µg/dL	+1SD	279892	28-Dec-2023 12:37:51	56.700	3.800	45.3 - 68.1



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## IQC / EQAS Outlier Log

Department Biochemistry XL-640

Date/Time	Parameter	Rule violated	Correc ve ac on	Tech Sign	Reviewed by
28/12/23	Phos level-1	+3SD	Random Error Re-run the fresh cc pass	Mavish	} @
28/12/23	UA level-1	-3SD	Random Error Re-run with fresh cc pass	Mavish	
28/12/23	FE level-2	+3SD	Random Error After Re-run cc pass	Mavish	