

HORIBA
Medical

HORIBA India Private Limited

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CIN : U73100DL2006PTC153232

HIN/MED/2023-2024 /1055090
27TH DEC 2023

CALIBRATION **CERTIFICATE**

This is to certify that the Hematology Analyzer Horiba PENTRA XL80 bearing serial number 209YOXH03936 installed at **REDCLIFFE LIFETECH LAB JALANDHAR** as calibrated on 27TH DEC 2023.

Calibrator : ABX
MINOCAL Lot No. :
CX489
Expiry Date : 05th JAN 2023

The reports of Blank Cycle, Repeatability and Calibration Values were all found in acceptable range.

Next calibration cycle is due on 26TH DEC 2024



Shrish Dixit

**(Head- Products &
Marketing) For
Horiba India Pvt.
Ltd.**

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CIN : U73100DL2006PTC1M232

Calibration Report

Sample ID CX489
Lot number CX489

Name MINOCAL

Exp. date 05/01/2024
Modified on

Coefficient	WBC	RBC	HGB	HCT	PLT	MPV
New	1.166	0.959	1.035	1.039	0.991	0.977
Current	1.166	0.959	1.035	1.039	0.991	0.977
Target	8.80	4.50	13.0	37.8	247	10.7
Mean	8.53	4.62	13.1	37.0	255	11.0
CV(%)	0.75	1.43	0.70	1.23	1.42	1.49

Number of calibration run selected for coefficient calculation (minimum 5) 5/6

Sel.	Run Time	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MPV (μm ³)
✓	27/12/2023 03:06:31 PM	8.58	4.56	13.0	36.6	251	10.8
	27/12/2023 03:07:58 PM	8.72	4.70 h	13.3 h	37.6	247	10.6
✓	27/12/2023 03:09:32 PM	8.45	4.56	13.0	36.6	257	10.8
✓	27/12/2023 03:10:59 PM	8.61	4.62 h	13.1	36.9	260 h	11.1
✓	27/12/2023 03:12:26 PM	8.54	4.71 h	13.1	37.7	255	11.1
✓	27/12/2023 03:13:53 PM	8.50	4.65 h	13.2 h	37.1	254	11.2



Repeatability Report (part 1)

Number of repeatability run report selected for statistic calculation 6/6

Coefficient	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MCV (μm ³)	RDW-CV (%)	RDW-SD (μm ³)	P-LCR (%)
Minimum	6.23	5.07	15.4	45.9	374	90.6	12.4	45.4	31.3
Maximum	6.46	5.16	15.7	47.1	405	91.3	13.1	46.9	34.1
Mean	6.33	5.12	15.5	46.5	391	90.9	12.7	45.9	33.0
Difference	0.22	0.10	0.3	1.2	32	0.7	0.6	1.5	2.8
2 SD	0.15	0.06	0.2	0.8	27	0.6	0.5	1.2	2.1
CV(%)	1.17	0.63	0.61	0.87	3.40	0.31	1.97	1.35	3.11

Sel	Run Date &Time	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MCV (μm ³)	RDW-CV (%)	RDW-SD (μm ³)	P-LCR (%)	Operator
✓	27/12/2023 02:54:44 PM	6.30	5.12	15.5	46.7	399 *	91.1	12.8	46.1	33.4	technician
✓	27/12/2023 02:56:11 PM	6.35	5.12	15.7	46.5	378 *	90.9	12.5	45.4	31.3	technician
✓	27/12/2023 02:57:45 PM	6.46	5.16	15.6	47.1	402 *	91.3	13.1	46.9	32.6	technician
✓	27/12/2023 02:59:16 PM	6.23	5.07	15.5	45.9	374 *	90.6	12.5	45.4	33.9	technician
✓	27/12/2023 03:00:52 PM	6.30	5.13	15.5	46.4	387 *	90.6	12.4	45.4	32.8	technician
✓	27/12/2023 03:02:28 PM	6.33	5.10	15.4	46.4	405 *	91.0	12.7	46.1	34.1	technician



Manufactured By:

HORIBA India Private Limited
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 Toll Free No.: 1800 103 4470

ABX Minocal



LOT CX 489
 Rev 1

CAL

(Exp.) 2024-01-05
 (YYYY-MM-DD)

PARAMETRES PARAMETERS	UNITES UNITS	WHITEDIFF								TOLERANCES TOLERANCE
		YUMIZEN V1.0 to V2.x				YUMIZEN since V3				
		H550	H500 OT H500 CT			H500 OT	H500 CT H550			
GB WBC	10 ³ /mm ³ ;10 ⁹ /l	8.80	8.80			8.80	8.80			± 0.20
GR RBC	10 ⁶ /mm ³ ;10 ¹² /l	4.50	4.50			4.45	4.45			± 0.06
HB HGB	g/dl	13.0	13.0			13.1	13.1			± 0.2
	g/l	130	130			131	131			± 2
	mmol/l	8.07	8.07			8.14	8.14			± 0.12
HT HCT	%	37.8	37.8			36.5	36.4			± 1.0
	l/l	0.378	0.378			0.365	0.364			± 0.010
PLA PLT	10 ³ /mm ³ ;10 ⁹ /l	247	247			252	259			± 10
VMP MPV	µm ³ ; fl	10.7	10.7			N/A	N/A			± 0.5

Ref: TEMP-0387 Rev.50 BACK / VERSO 1300113555

*Blood Control Vial should be disposed off as per State Government Bio-Medical Waste Management Rule.

Blank Cycle Logs

Running Date Comments	Operator	WBC 10 ³ /μL	RBC 10 ⁹ /μL	HGB g/dL	PLT 10 ³ /μL	Status	Technical alarms
27/12/2023 08:56:35 AM	REDCLIFFE	0.00	0.00	0.0	2	Passed	
27/12/2023 10:10:18 AM	technician	0.03	0.00	0.0	0	Passed	
27/12/2023 02:38:07 PM	technician	0.01	0.00	0.0	0	Passed	



QC - Control Run Report

Run Date 27/12/2023 03:16:26 PM

Operator technician

Name ABXdifftrol L

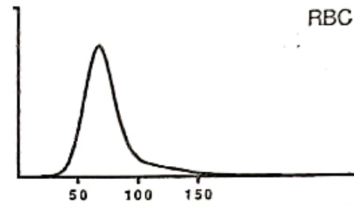
Sample ID PX445L

Level Low

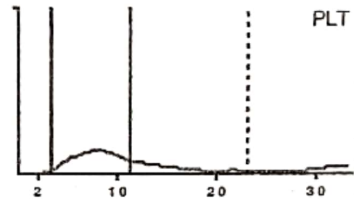
Exp. date 05/03/2024

Lot number PX445L

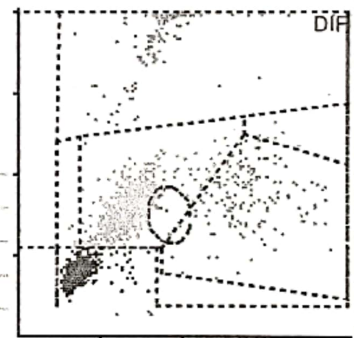
			Range
RBC	2.40	10 ⁶ /μL	2.17 - 2.49
HGB	6.0	g/dL	5.5 - 6.3
HCT	18.6	%	16.6 - 19.6
MCV	77.8	μm ³	72.5 - 82.5
MCH	25.1	pg	23.3 - 27.3
MCHC	32.3	g/dL	29.7 - 35.7
DW-CV	16.4	%	14.0 - 22.0



			Range
PLT	64	10 ³ /μL	49 - 89
MPV	9.2	μm ³	7.5 - 11.5



			Range
WBC	3.15	10 ³ /μL	2.60 - 3.40
	#	Range	%
NEU	1.45	0.92 - 1.62	46.1
LYM	1.24	0.83 - 1.49	39.3
MON	0.25	0.00 - 0.52	7.9
EOS	0.19	0.00 - 0.34	5.9
BAS	0.02	0.00 - 0.28	0.8



Raw Data

PLT counts (by sections)

S1	S2	S3	S4	S5	S6
71	92	113	109	82	102
S7	S8	S9	S10	S11	S12
81	85	89	88	90	103

RBC counts (by sections)

S1	S2	S3	S4	S5	S6
2270	2295	2390	2329	2271	2282
S7	S8	S9	S10	S11	S12
2341	2271	2188	2348	2245	2235

WBC counts (by sections) and others

S1	S2	S3	S4	S5	S6
236	195	192	185	189	199
S7	S8	S9	S10	S11	
207	212	193	206	186	
RMeasured :		2097			
Correlated :		2084			
Optical intensity		199			

HBG measures (Optical intensity)

LI1	LI2	LI3	LI4	LI5	LI6
3840	3841	3841	1977	1978	1977
LI7	LI8	LI9	LI10	LI11	LI12
1978	1978	1979	1979	1978	1978
LI13					
1979					

QC - Control Run Report

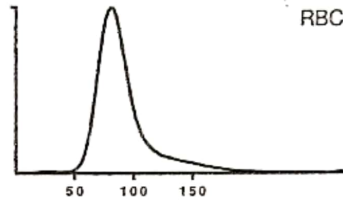
Run Date 27/12/2023 03:20:59 PM

Operator technician

Name ABXdifftrol H
Level High
Lot number PX445H

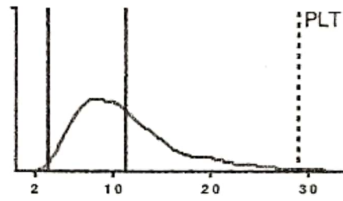
Sample ID PX445H
Exp. date 05/03/2024

			Range
RBC	5.09	10 ⁶ /μL	4.76 - 5.26
HGB	15.5	g/dL	14.9 - 16.1
HCT	47.6	%	44.6 - 49.6
MCV	93.5	μm ³	89.0 - 99.0
MCH	30.4	pg	28.4 - 33.4
MCHC	32.5	g/dL	29.9 - 35.9
RDW-CV	13.0	%	10.0 - 18.0

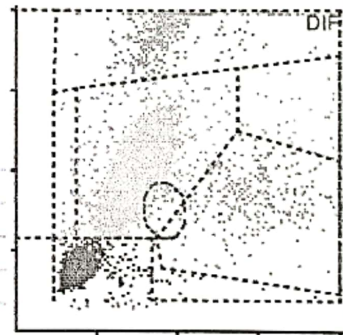


Alarms

			Range
PLT	460	10 ³ /μL	425 - 525
MPV	10.0	μm ³	8.2 - 12.2



			Range			Range
WBC	19.13	10 ³ /μL	16.20 - 20.60			
	#		Range	%		Range
NEU	13.83		10.50 -	72.2		57.4 - 77.4
LYM	3.83		2.49 - 5.49	20.0		13.7 - 29.7
MON	0.56		0.00 - 1.18	3.0		0.0 - 6.4
EOS	0.86		0.06 - 1.64	4.5		0.3 - 8.9
BAS	0.05		0.00 - 1.14	0.3		0.0 - 6.2



Raw Data

PLT counts (by sections)

S1	S2	S3	S4	S5	S6
402	407	424	422	420	425
S7	S8	S9	S10	S11	S12
384	379	381	386	401	413

RBC counts (by sections)

S1	S2	S3	S4	S5	S6
4422	4542	4472	4475	4470	4464
S7	S8	S9	S10	S11	S12
4375	4458	4371	4447	4415	4562

WBC counts (by sections) and others

S1	S2	S3	S4	S5	S6
1171	1178	1263	1241	1255	1159
S7	S8	S9	S10	S11	
1156	1212	1250	1172	1189	

HBG measures (Optical intensity)

LI1	LI2	LI3	LI4	LI5	LI6
3836	3835	3824	746	746	746
LI7	LI8	LI9	LI10	LI11	LI12
746	746	746	746	746	746
LI13					
746					

RMeasured : 10885
 Correlated : 10852
 Optical intensity 200

QC - Control Run Report

Run Date 27/12/2023 03:18:54 PM

Operator technician

Name ABXdiffrol N

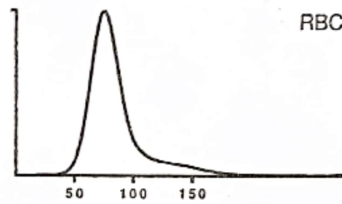
Sample ID PX445N

Level Normal

Exp. date 05/03/2024

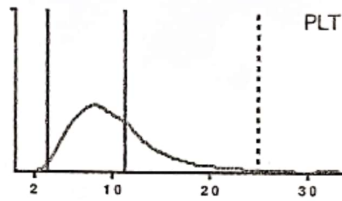
Lot number PX445N

			Range
RBC	4.58	10 ⁶ /μL	4.37 - 4.77
HGB	13.1	g/dL	12.6 - 13.6
HCT	39.8	%	37.8 - 41.8
MCV	86.9	μm ³	82.0 - 92.0
MCH	28.7	pg	26.7 - 30.7
MCHC	33.0	g/dL	29.9 - 35.9
PDW-CV	13.4	%	11.0 - 19.0



Alarms

			Range
PLT	231	10 ³ /μL	203 - 263
MPV	9.1	μm ³	7.5 - 11.5



			Range		Range
WBC	8.60	10 ³ /μL	7.50 - 9.50		
	#		Range	%	Range
NEU	4.23		3.02 - 4.82	49.4	36.1 - 56.1
LYM	3.63		2.94 - 4.34	42.2	34.8 - 50.8
MON	0.40		0.00 - 0.90	4.6	0.0 - 10.6
EOS	0.31		0.04 - 0.60	3.5	0.5 - 7.1
BAS	0.03		0.00 - 0.34	0.3	0.0 - 4.0



Raw Data

PLT counts (by sections)

S1	S2	S3	S4	S5	S6
196	235	216	262	245	250
S7	S8	S9	S10	S11	S12
193	206	223	226	254	260

RBC counts (by sections)

S1	S2	S3	S4	S5	S6
4030	3981	4184	4156	4067	4196
S7	S8	S9	S10	S11	S12
4151	3986	3979	4027	4089	4000

WBC counts (by sections) and others

S1	S2	S3	S4	S5	S6
523	537	581	561	572	511
S7	S8	S9	S10	S11	
543	549	520	527	567	

HBG measures (Optical intensity)

L1	L2	L3	L4	L5	L6
3842	3842	3842	938	939	939
L7	L8	L9	L10	L11	L12
939	938	938	939	939	938
L13					
939					

RMeasured : 5388
 Correlated : 5332
 Optical intensity : 200