

HORIBA

Explore the future

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HIN/MED/2022-2023/100786

06th MARCH 2023

CALIBRATION CERTIFICATE

This is to certify that the Hematology Analyzer **ABX Yumizen H550** bearing serial number: **201YAXH03629** installed at **Kamal diagnocare LLP, Pimpri-Chinchwad, Maharashtra** calibrated on **06th MARCH 2023**

Calibrator : ABX MINOCAL

Lot No. : CX480

Expiry Date : 05th April 2023

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

Next calibration cycle is due on **05th March 2024**.



Shrish Dixit

(Head- Products & Marketing)

For **Horiba India Pvt. Ltd.**

Blank Cycle Logs

Running Date Comments	Operator	WBC 10 ³ /μL	RBC 10 ⁶ /μL	HGB g/dL	PLT 10 ³ /μL	Status	Technical alarms
06/03/2023 09:19:08 AM	KAMAL	0.00	0.00	0.0	3	Passed	
06/03/2023 05:28:27 PM	KAMAL	0.00	0.00	0.0	5	Passed	

Repeatability Report (part 1)

Number of repeatability run report selected for statistic calculation 7/7

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	4.86	4.96	12.1	37.3	307	74.9	19.2	55.4	21.9
Maximum	5.14	5.08	12.3	38.3	340	75.8	19.6	57.1	25.1
Mean	4.98	5.04	12.2	37.9	321	75.3	19.3	56.4	23.7
Difference	0.28	0.12	0.2	1.0	33	0.9	0.5	1.7	3.2
2 SD	0.19	0.09	0.1	0.6	22	0.6	0.4	1.2	2.4
CV(%)	1.93	0.91	0.53	0.85	3.50	0.41	1.01	1.03	5.07

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
✓	06/03/2023 05:32:54 PM	4.88	5.08	12.2	38.2	340	75.2	19.6	57.1	23.0	KAMAL
✓	06/03/2023 05:34:37 PM	4.86	5.05	12.3	37.9	316	74.9	19.3	56.3	25.0	KAMAL
✓	06/03/2023 05:36:09 PM	5.05	5.06	12.2	38.1	307	75.2	19.2	56.3	23.6	KAMAL
✓	06/03/2023 05:37:51 PM	5.14	4.96	12.3	37.3	331	75.3	19.2	56.3	22.8	KAMAL
✓	06/03/2023 05:39:30 PM	4.95	5.04	12.1	37.9	312	75.1	19.2	55.4	24.3	KAMAL
✓	06/03/2023 05:41:07 PM	4.98	5.06	12.3	38.3	321	75.7	19.2	56.3	21.9	KAMAL
✓	06/03/2023 05:42:50 PM	4.98	4.98	12.2	37.8	317	75.8	19.6	57.1	25.1	KAMAL

Repeatability Report (part 2)

Number of repeatability run report selected for statistic calculation 7/7

Coefficient	NEU% (%)	LYM% (%)	MON% (%)	EOS% (%)	BAS% (%)	LIC% (%)
Minimum	66.3	18.5	8.5	3.1	0.6	0.5
Maximum	67.8	20.7	10.0	4.2	1.1	1.0
Mean	67.2	19.4	9.1	3.5	0.8	0.7
Difference	1.5	2.2	1.5	1.1	0.5	0.5
2 SD	1.0	1.5	1.0	0.8	0.4	0.3
CV(%)	0.72	3.86	5.32	11.43	23.33	22.03

Sel	Run Date &Time	NEU% (%)	LYM% (%)	MON% (%)	EOS% (%)	BAS% (%)	LIC% (%)	Operator
✓	06/03/2023 05:32:54 PM	67.0	19.2	9.3	3.4	1.1	1.0	KAMAL
	06/03/2023 05:34:37 PM	67.6	18.6	10.0	3.1	0.7	0.7	KAMAL
✓	06/03/2023 05:36:09 PM	67.3	19.5	9.3	3.3	0.6	0.8	KAMAL
✓	06/03/2023 05:37:51 PM	66.3	20.7	9.0	3.1	0.9	0.5	KAMAL
✓	06/03/2023 05:39:30 PM	67.2	19.7	8.7	3.6	0.8	0.7	KAMAL
✓	06/03/2023 05:41:07 PM	67.8	18.5	9.2	3.8	0.7	0.6	KAMAL
✓	06/03/2023 05:42:50 PM	67.0	19.7	8.5	4.2	0.6	0.7	KAMAL

Calibration Report

Sample ID CX480
Lot number CX480

Name ABX MINOCAL

Exp. date 05/04/2023
Modified on

Coefficient	WBC	RBC	HGB	HCT	PLT	MPV
New	1.111	0.973	0.985	1.031	0.957	1.043
Current	1.116	0.975	0.985	0.980	0.999	1.072
Target	8.70	4.57	13.2	38.2	250	10.8
Mean	8.74	4.58	13.2	36.4	261	11.1
CV(%)	0.63	0.76	0.64	1.09	2.75	1.41

Number of calibration run selected for coefficient calculation (minimum 5) 7/7

Sel.	Run Time	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MPV (μm ³)
✓	06/03/2023 05:48:44 PM	8.79	4.56	13.3	36.4	260	11.1
✓	06/03/2023 05:50:28 PM	8.77	4.58	13.2	36.4	264 h	11.1
✓	06/03/2023 05:51:56 PM	8.63	4.62	13.2	36.3	276 h	11.0
✓	06/03/2023 05:53:25 PM	8.77	4.57	13.2	36.5	260	11.4 h
✓	06/03/2023 05:54:56 PM	8.76	4.51	13.2	35.6	256	11.1
✓	06/03/2023 05:56:28 PM	8.70	4.59	13.3	36.9	259	11.0
✓	06/03/2023 05:58:07 PM	8.77	4.59	13.1	36.5	254	11.0

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Lot number CX480

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Exp. date 05/04/2023
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Number of calibration run selected for coefficient calculation (minimum 5) 7/7

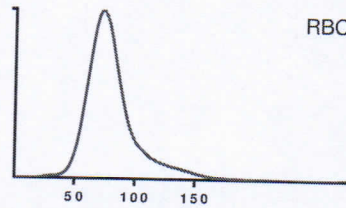
Sel.	Run Time	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MPV (μm ³)
✓	06/03/2023 05:48:44 PM	8.79	4.56	13.3	36.4	260	11.1
✓	06/03/2023 05:50:28 PM	8.77	4.58	13.2	36.4	264 h	11.1
✓	06/03/2023 05:51:56 PM	8.63	4.62	13.2	36.3	276 h	11.0
✓	06/03/2023 05:53:25 PM	8.77	4.57	13.2	36.5	260	11.4 h
✓	06/03/2023 05:54:56 PM	8.76	4.51	13.2	35.6	256	11.1
✓	06/03/2023 05:56:28 PM	8.70	4.59	13.3	36.9	259	11.0
✓	06/03/2023 05:58:07 PM	8.77	4.59	13.1	36.5	254	11.0

Results

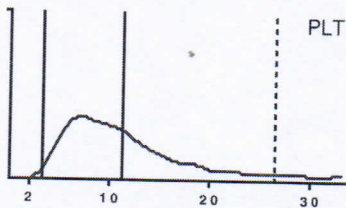
Run Date 06/03/2023 06:03:00 PM
Last Name CX480
First Name
Gender Unknown **Age**
Patient ID AUTO_PID00002
Birth Date
Sample comments

Operator ABX
Sample ID CAL AS SAMPLE
Rack/Pos
Department
Physician
Type Standard

			Range
RBC	4.55	10 ⁶ /μL	3.80 - 6.00
HGB	13.1	g/dL	11.5 - 17.0
HCT	37.8	%	35.0 - 52.0
MCV	83.0	μm ³	76.0 - 100.0
MCH	28.8	pg	27.0 - 34.0
MCHC	34.8	g/dL	32.0 - 35.0
RDW-CV	16.2	%	11.0 - 17.0
RDW-SD	52.1	h μm ³	37.0 - 49.0

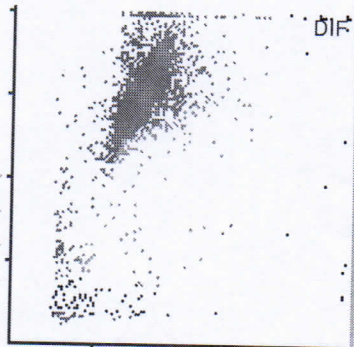


			Range
PLT	255	10 ³ /μL	150 - 400
PCT	0.27	%	0.15 - 0.40
MPV	10.6	μm ³	8.0 - 11.0
PDW	18.9	μm ³	11.0 - 22.0
P-LCC	97	10 ³ /μL	44 - 140
P-LCR	37.9	%	18.0 - 50.0



Recommended actions
 Slide review
Alarms
 Control failed
 XB Failed
WBC
 Background Noise
 Abnormal Differentiation
Susp. Pathologies
 Lymphopenia
 Eosinophilia
 Extrem neutropenia
 Malaria P. falciparum ?
 Malaria P. vivax ?

			Range
WBC	8.40	* 10 ³ /μL	3.50 - 10.00
	#		Range
NEU	0.46	L*	1.60 - 7.00
LYM	0.18	L*	1.00 - 3.00
MON	0.01	l*	0.20 - 0.80
EOS	7.64	H*	0.00 - 0.50
BAS	0.02	*	0.00 - 0.15
LIC	0.09	*	0.00 - 0.10
			%
			Range
			5.6 l*
			40.0 - 73.0
			2.2 l*
			15.0 - 45.0
			0.1 l*
			4.0 - 12.0
			91.8 h*
			0.5 - 7.0
			0.3 *
			0.0 - 2.0
			1.1 h*
			0.0 - 1.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

QC - Control Run Report

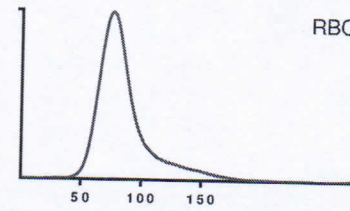
Run Date | 06/03/2023 06:00:32 PM

Operator | ABX

Name | ABXdifftrol N
Level | Normal
Lot number | PX440N

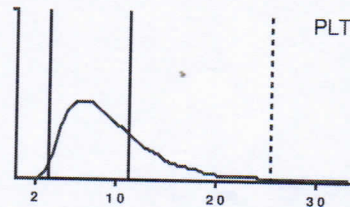
Sample ID | PX440N
Exp. date | 05/05/2023

			Range
RBC	4.58	10 ⁶ /μL	4.32 - 4.72
HGB	13.0	g/dL	12.7 - 13.7
HCT	40.4	%	38.2 - 42.2
MCV	88.2	μm ³	84.0 - 94.0
MCH	28.4	pg	27.2 - 31.2
MCHC	32.2	g/dL	29.8 - 35.8
RDW-CV	14.4	%	10.5 - 18.5

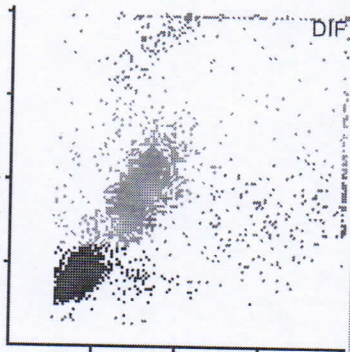


Alarms

			Range
PLT	248	10 ³ /μL	231 - 291
MPV	9.2	μm ³	7.3 - 11.3



WBC	8.07	10 ³ /μL	Range	
	#	Range	%	Range
NEU	3.92	3.03 - 4.83	48.6	37.4 - 57.4
LYM	3.35	2.79 - 4.19	41.5	34.0 - 50.0
MON	0.34	0.00 - 0.74	4.2	0.0 - 8.8
EOS	0.37	0.02 - 0.60	4.6	0.3 - 7.1
BAS	0.09	0.00 - 0.42	1.1	0.0 - 5.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :