

HORIBA
Medical

HORIBA India Private Limited

246, Okhla Industrial Estate Phase-III,
New Delhi 110020, India
Tel : +91 (11) 4646 5000 / 4669 5001
Fax : +91 (11) 4646 5020
http : //www.horiba.com
CIN : U73100DL2006PTC153232

HIN/MED/2023-2024 /10556540
30TH OCT 2023

CALIBRATION **CERTIFICATE**

This is to certify that the Hematology Analyzer Horiba YUMIZEN H550 bearing serial number 109YAXH03509 installed at **KRSNAA DIAGNOSTIC LAB BATALA** as calibrated on 30TH OCT 2023.

Calibrator: ABX MINOCAL

Lot NO : CX487

Expiry Date : 05th NOV 2023

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

Next calibration cycle is due on 29TH OCT 2024



Shrish Dixit

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

246, Okhla Industrial
Estate Phase-III, New Delhi
110020, India
Tel : +91 (11) 4546 5000 / 46695001
Fax : +91 (11) 4646 5020
[http : //www.horiba.com](http://www.horiba.com)
CIN : U73100DL2006PTC1M232

Calibration Report

Sample ID CX487
Lot number CX487

Name MINOCAL

Exp. date 11/05/2023
Modified on

| Coefficient | WBC | RBC | HGB | HCT | PLT | MPV |
|-------------|-------|-------|-------|-------|-------|-------|
| New | 1.165 | 0.982 | 0.993 | 1.036 | 1.025 | 1.010 |
| Current | 1.165 | 0.982 | 0.995 | 1.000 | 0.910 | 1.010 |
| Target | 9.10 | 4.61 | 13.0 | 38.0 | 242 | 10.3 |
| Mean | 8.83 | 4.60 | 12.9 | 37.9 | 235 | 10.5 |
| CV(%) | 1.30 | 1.32 | 0.65 | 1.40 | 1.80 | 0.92 |

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) |
|------|------------------------|------------------------------|------------------------------|---------------|------------|------------------------------|---------------------------|
| | 10/30/2023 05:18:55 PM | 9.09 | 4.64 | 13.2 | 38.3 | 235 | 10.6 |
| ✓ | 10/30/2023 05:20:25 PM | 8.66 | 4.56 | 12.8 | 37.6 | 236 | 10.6 |
| ✓ | 10/30/2023 05:21:53 PM | 8.89 | 4.65 | 13.0 | 38.4 | 229 | 10.5 |
| ✓ | 10/30/2023 05:23:22 PM | 8.85 | 4.67 h | 12.9 | 38.6 | 241 | 10.6 |
| ✓ | 10/30/2023 05:25:18 PM | 8.97 | 4.58 | 12.8 | 37.7 | 233 | 10.4 |
| ✓ | 10/30/2023 05:26:52 PM | 8.78 | 4.54 | 13.0 | 37.4 | 234 | 10.5 |

Repeatability Report (part 1)

Number of repeatability run report selected for statistic calculation 5/5

| 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 | 3.89 | 5.44 | 13.2 | 41.7 | 221 | 76.3 | 16.4 | 43.1 | 40.5 |
| Maximum | 4.10 | 5.56 | 13.5 | 42.8 | 238 | 76.9 | 16.8 | 43.9 | 42.5 |
| Mean | 4.01 | 5.48 | 13.4 | 42.0 | 229 | 76.7 | 16.6 | 43.3 | 41.6 |
| Difference | 0.22 | 0.12 | 0.3 | 1.1 | 17 | 0.6 | 0.4 | 0.8 | 2.0 |
| 2 SD | 0.16 | 0.09 | 0.2 | 0.9 | 13 | 0.5 | 0.3 | 0.7 | 1.5 |
| CV(%) | 2.02 | 0.86 | 0.84 | 1.05 | 2.91 | 0.34 | 1.05 | 0.83 | 1.83 |

| 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 |
|-----|---------------------------|------------------------------|------------------------------|---------------|------------|------------------------------|---------------------------|---------------|------------------------------|--------------|------------|
| ✓ | 10/30/2023 05:02:55 PM | 4.10 | 5.47 | 13.5 | 42.0 | 231 | 76.7 | 16.5 | 43.1 | 41.4 | technician |
| ✓ | 10/30/2023 05:04:45 PM | 4.06 | 5.44 | 13.4 | 41.8 | 230 | 76.9 | 16.8 | 43.9 | 42.5 | technician |
| ✓ | 10/30/2023 05:06:22 PM | 4.00 | 5.56 | 13.3 | 42.8 | 238 | 76.9 | 16.6 | 43.1 | 41.8 | technician |
| ✓ | 10/30/2023 05:07:52 PM | 3.99 | 5.45 | 13.2 | 41.7 | 221 | 76.5 | 16.4 | 43.1 | 42.0 | technician |
| ✓ | 10/30/2023 05:11:07 PM | 3.89 | 5.47 | 13.4 | 41.8 | 223 | 76.3 | 16.8 | 43.1 | 40.5 | technician |

Repeatability Report (part 2)

Number of repeatability run report selected for statistic calculation 5/5

| Coefficient | NEU% (%) | LYM% (%) | MON% (%) | EOS% (%) | BAS% (%) | LIC% (%) |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Minimum | 67.7 | 24.0 | 3.7 | 0.6 | 1.0 | 0.3 |
| Maximum | 69.6 | 25.2 | 4.6 | 0.8 | 1.7 | 0.8 |
| Mean | 68.9 | 24.5 | 4.0 | 0.7 | 1.4 | 0.6 |
| Difference | 1.9 | 1.2 | 0.9 | 0.2 | 0.7 | 0.5 |
| 2 SD | 1.4 | 1.1 | 0.7 | 0.2 | 0.5 | 0.5 |
| CV(%) | 1.04 | 2.22 | 9.19 | 13.55 | 19.17 | 39.32 |

| Sel | Run Date &Time | NEU% (%) | LYM% (%) | MON% (%) | EOS% (%) | BAS% (%) | LIC% (%) | Operator |
|-----|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| ✓ | 10/30/2023 05:02:55 PM | 69.0 | 25.0 | 3.7 | 0.6 | 1.3 | 0.4 | technician |
| ✓ | 10/30/2023 05:04:45 PM | 68.9 | 24.0 | 4.6 | 0.7 | 1.0 | 0.8 | technician |
| ✓ | 10/30/2023 05:06:22 PM | 69.6 | 24.1 | 3.8 | 0.6 | 1.3 | 0.6 | technician |
| ✓ | 10/30/2023 05:07:52 PM | 69.2 | 24.3 | 4.1 | 0.6 | 1.5 | 0.3 | technician |
| ✓ | 10/30/2023 05:11:07 PM | 67.7 | 25.2 | 3.8 | 0.8 | 1.7 | 0.8 | technician |

QC - Control Run Report

Run Date 10/30/2023 07:17:02 AM

Operator LAB

Name ABX DIFFTROL

Sample ID PX443N

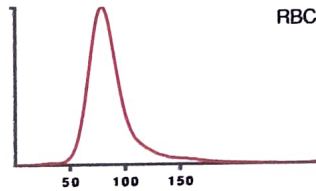
Level Normal

Exp. date 11/05/2023

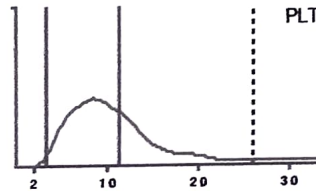
Lot number PX443

Alarms

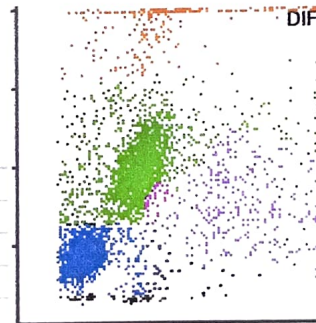
| | | | Range |
|-------------|------|---------------------|--------------|
| RBC | 4.76 | 10 ⁶ /μL | 4.46 - 4.86 |
| HGB | 13.0 | g/dL | 12.7 - 13.7 |
| HCT | 42.0 | % | 38.5 - 42.5 |
| MCV | 88.3 | μm ³ | 82.0 - 92.0 |
| MCH | 27.2 | pg | 26.3 - 30.3 |
| MCHC | 30.8 | g/dL | 29.6 - 35.6 |
| W-CV | 14.7 | % | 10.0 - 18.0 |



| | | | Range |
|------------|-----|---------------------|--------------|
| PLT | 264 | 10 ³ /μL | 220 - 280 |
| MPV | 9.9 | μm ³ | 7.5 - 11.5 |



| | | | Range |
|------------|----------|---------------------|--------------|
| WBC | 9.27 | 10 ³ /μL | 7.40 - 9.40 |
| | # | Range | % |
| NEU | 4.46 | 3.03 - 4.83 | 48.0 |
| LYM | 3.69 | 2.74 - 4.14 | 39.8 |
| MON | 0.53 | 0.02 - 1.02 | 5.8 |
| EOS | 0.50 | 0.00 - 0.50 | 5.4 |
| BAS | 0.09 | 0.00 - 0.50 | 1.0 |
| | | | Range |
| | | | 36.8 - 56.8 |
| | | | 33.0 - 49.0 |
| | | | 0.2 - 12.2 |
| | | | 0.0 - 6.0 |
| | | | 0.0 - 6.0 |



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 :

Jobangit Srm
30/10/2023

QC - Control Run Report

Run Date 10/30/2023 07:36:59 AM

Operator LAB

Name ABX DIFFTROL

Sample ID PX443H

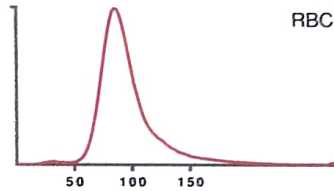
Level High

Exp. date 11/05/2023

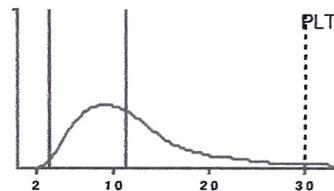
Lot number PX443

Alarms

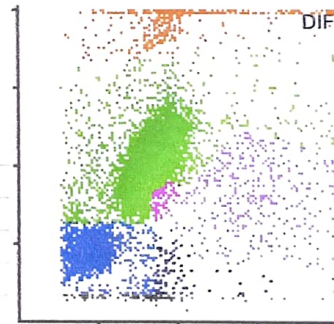
| | | | Range |
|------|------|---------------------|-------------|
| RBC | 5.32 | 10 ⁶ /μL | 5.03 - 5.53 |
| HGB | 15.8 | g/dL | 15.7 - 16.9 |
| HCT | 51.3 | % | 47.1 - 52.1 |
| MCV | 96.5 | μm ³ | 89.0 - 99.0 |
| MCH | 29.8 | pg | 28.4 - 33.4 |
| MCHC | 30.8 | g/dL | 29.8 - 35.8 |
| W-CV | 15.7 | % | 9.5 - 17.5 |



| | | | Range |
|-----|------|---------------------|------------|
| PLT | 504 | 10 ³ /μL | 447 - 547 |
| MPV | 11.2 | μm ³ | 8.8 - 12.8 |



| | | | Range | | Range |
|-----|-------|---------------------|---------------|-------|-------------|
| WBC | 19.51 | 10 ³ /μL | 16.10 - 20.50 | | |
| | # | | | Range | % |
| NEU | 13.33 | | 10.54 - 16.10 | 68.3 | 58.0 - 78.0 |
| LYM | 4.14 | | 2.18 - 5.18 | 21.2 | 12.1 - 28.1 |
| MON | 0.72 | | 0.00 - 1.42 | 3.7 | 0.0 - 7.8 |
| EOS | 1.07 | | 0.00 - 1.46 | 5.5 | 0.0 - 8.0 |
| BAS | 0.25 | | 0.00 - 1.46 | 1.3 | 0.0 - 8.0 |



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 :

Tobanji
30/10/2023