

# BC-3D

## HEMATOLOGY CONTROLS

CONTROL

## ASSAY VALUES AND EXPECTED RANGES

LOT

 B0523


2023-08-05

| Instrument                                      | Parameter  | Low  |  | Normal   |  | High                              |                                   |
|---|--|--|--|--|--|-----------------------------------|-----------------------------------|
|   |  | <div style="border: 1px solid black; padding: 2px;">LOT</div> B0523L | <div style="border: 1px solid black; padding: 2px;">LOT</div> B0523N | <div style="border: 1px solid black; padding: 2px;">LOT</div> B0523H | <div style="border: 1px solid black; padding: 2px;">LOT</div> B0523H |                                   |                                   |
|   |  | The U.S. Units   | The International Units  | The U.S. Units   | The International Units  | The U.S. Units                    | The International Units           |
| BC-3600<br>CD version<br>1.8(FDA)<br>or greater | WBC  | 1.9 ± 0.5 × 10 <sup>3</sup> /μL                                      | 1.9 ± 0.5 × 10 <sup>9</sup> /L                                       | 7.7 ± 1.0 × 10 <sup>3</sup> /μL                                      | 7.7 ± 1.0 × 10 <sup>9</sup> /L                                       | 20.4 ± 2.5 × 10 <sup>3</sup> /μL  | 20.4 ± 2.5 × 10 <sup>9</sup> /L   |
|   | RBC  | 2.32 ± 0.18 × 10 <sup>6</sup> /μL                                    | 2.32 ± 0.18 × 10 <sup>12</sup> /L                                    | 4.56 ± 0.24 × 10 <sup>6</sup> /μL                                    | 4.56 ± 0.24 × 10 <sup>12</sup> /L                                    | 5.64 ± 0.30 × 10 <sup>6</sup> /μL | 5.64 ± 0.30 × 10 <sup>12</sup> /L |
|   | HGB  | 5.9 ± 0.4 g/dL   | 59 ± 4 g/L   | 13.6 ± 0.6 g/dL  | 136 ± 6 g/L  | 18.6 ± 0.8 g/dL                   | 186 ± 8 g/L                       |
|   | HCT  | 17.7 ± 1.5 %   | 17.7 ± 1.5 %   | 39.2 ± 2.0 %   | 39.2 ± 2.0 %   | 53.0 ± 2.4 %                      | 53.0 ± 2.4 %                      |
|   | MCV  | 76.5 ± 5.0 fL  | 76.5 ± 5.0 fL  | 86.0 ± 5.0 fL  | 86.0 ± 5.0 fL  | 94.0 ± 5.0 fL                     | 94.0 ± 5.0 fL                     |
|   | MCH  | 25.4 ± 2.5 pg  | 25.4 ± 2.5 pg  | 29.8 ± 2.5 pg  | 29.8 ± 2.5 pg  | 33.0 ± 2.5 pg                     | 33.0 ± 2.5 pg                     |
|   | MCHC   | 33.2 ± 3.0 g/dL  | 332 ± 30 g/L   | 34.7 ± 3.0 g/dL  | 347 ± 30 g/L   | 35.1 ± 3.0 g/dL                   | 351 ± 30 g/L                      |
|   | RDW  | 15.0 ± 3.0 %   | 15.0 ± 3.0 %   | 14.5 ± 3.0 %   | 14.5 ± 3.0 %   | 14.0 ± 3.0 %                      | 14.0 ± 3.0 %                      |
|   | PLT  | 63 ± 20 × 10 <sup>3</sup> /μL  | 63 ± 20 × 10 <sup>9</sup> /L   | 263 ± 40 × 10 <sup>3</sup> /μL                                       | 263 ± 40 × 10 <sup>9</sup> /L  | 572 ± 60 × 10 <sup>3</sup> /μL    | 572 ± 60 × 10 <sup>9</sup> /L     |
|   | MPV  | 7.4 ± 3.0 fL   | 7.4 ± 3.0 fL   | 7.9 ± 3.0 fL   | 7.9 ± 3.0 fL   | 7.8 ± 3.0 fL                      | 7.8 ± 3.0 fL                      |
|   | Lymph  | 59.0 ± 9.0 %   | 59.0 ± 9.0 %   | 31.5 ± 8.0 %   | 31.5 ± 8.0 %   | 15.0 ± 8.0 %                      | 15.0 ± 8.0 %                      |
|   | Mid  | 10.0 ± 9.0 %   | 10.0 ± 9.0 %   | 7.0 ± 6.0 %  | 7.0 ± 6.0 %  | 4.5 ± 4.0 %                       | 4.5 ± 4.0 %                       |
|   | Gran   | 31.0 ± 9.0 %   | 31.0 ± 9.0 %   | 61.5 ± 8.0 %   | 61.5 ± 8.0 %   | 80.5 ± 9.0 %                      | 80.5 ± 9.0 %                      |
|   | Lymph#   | 1.1 ± 0.2 × 10 <sup>3</sup> /μL                                      | 1.1 ± 0.2 × 10 <sup>9</sup> /L                                       | 2.4 ± 0.6 × 10 <sup>3</sup> /μL                                      | 2.4 ± 0.6 × 10 <sup>9</sup> /L                                       | 3.1 ± 1.7 × 10 <sup>3</sup> /μL   | 3.1 ± 1.7 × 10 <sup>9</sup> /L    |
|   | Mid#   | 0.2 ± 0.2 × 10 <sup>3</sup> /μL                                      | 0.2 ± 0.2 × 10 <sup>9</sup> /L                                       | 0.5 ± 0.5 × 10 <sup>3</sup> /μL                                      | 0.5 ± 0.5 × 10 <sup>9</sup> /L                                       | 0.9 ± 0.8 × 10 <sup>3</sup> /μL   | 0.9 ± 0.8 × 10 <sup>9</sup> /L    |
|   | Gran#  | 0.6 ± 0.2 × 10 <sup>3</sup> /μL                                      | 0.6 ± 0.2 × 10 <sup>9</sup> /L                                       | 4.8 ± 0.7 × 10 <sup>3</sup> /μL                                      | 4.8 ± 0.7 × 10 <sup>9</sup> /L                                       | 16.4 ± 1.9 × 10 <sup>3</sup> /μL  | 16.4 ± 1.9 × 10 <sup>9</sup> /L   |
|   | BC-3600<br>CD version<br>lower than<br>1.8 and/or<br>manufacture<br>date before<br>March of 2015 | WBC  | 2.0 ± 0.5 × 10 <sup>3</sup> /μL                                      | 2.0 ± 0.5 × 10 <sup>9</sup> /L                                       | 8.0 ± 1.0 × 10 <sup>3</sup> /μL                                      | 8.0 ± 1.0 × 10 <sup>9</sup> /L    | 20.6 ± 2.5 × 10 <sup>3</sup> /μL  |
| RBC   |  | 2.44 ± 0.18 × 10 <sup>6</sup> /μL                                    | 2.44 ± 0.18 × 10 <sup>12</sup> /L                                    | 4.71 ± 0.24 × 10 <sup>6</sup> /μL                                    | 4.71 ± 0.24 × 10 <sup>12</sup> /L                                    | 5.74 ± 0.30 × 10 <sup>6</sup> /μL | 5.74 ± 0.30 × 10 <sup>12</sup> /L |
| HGB   |  | 6.1 ± 0.4 g/dL   | 61 ± 4 g/L   | 13.5 ± 0.6 g/dL  | 135 ± 6 g/L  | 18.4 ± 0.8 g/dL                   | 184 ± 8 g/L                       |
| HCT   |  | 18.6 ± 1.5 %   | 18.6 ± 1.5 %   | 40.6 ± 2.0 %   | 40.6 ± 2.0 %   | 53.7 ± 2.4 %                      | 53.7 ± 2.4 %                      |
| MCV   |  | 76.2 ± 5.0 fL  | 76.2 ± 5.0 fL  | 86.1 ± 5.0 fL  | 86.1 ± 5.0 fL  | 93.5 ± 5.0 fL                     | 93.5 ± 5.0 fL                     |
| MCH   |  | 25 ± 2.5 pg  | 25.0 ± 2.5 pg  | 28.7 ± 2.5 pg  | 28.7 ± 2.5 pg  | 32.1 ± 2.5 pg                     | 32.1 ± 2.5 pg                     |
| MCHC  |  | 32.8 ± 3.0 g/dL  | 328 ± 30 g/L   | 33.3 ± 3.0 g/dL  | 333 ± 30 g/L   | 34.3 ± 3.0 g/dL                   | 343 ± 30 g/L                      |
| RDW-CV  |  | 17.1 ± 3.0 %   | 17.1 ± 3.0 %   | 15.1 ± 3.0 %   | 15.1 ± 3.0 %   | 14.2 ± 3.0 %                      | 14.2 ± 3.0 %                      |
| RDW-SD  |  | 39.7 ± 8.0 fL  | 39.7 ± 8.0 fL  | 43.0 ± 8.0 fL  | 43.0 ± 8.0 fL  | 46.4 ± 8.0 fL                     | 46.4 ± 8.0 fL                     |
| PLT   |  | 66 ± 20 × 10 <sup>3</sup> /μL  | 66 ± 20 × 10 <sup>9</sup> /L   | 273 ± 40 × 10 <sup>3</sup> /μL                                       | 273 ± 40 × 10 <sup>9</sup> /L  | 572 ± 60 × 10 <sup>3</sup> /μL    | 572 ± 60 × 10 <sup>9</sup> /L     |
| MPV   |  | 8.8 ± 3.0 fL   | 8.8 ± 3.0 fL   | 9.2 ± 3.0 fL   | 9.2 ± 3.0 fL   | 9.2 ± 3.0 fL                      | 9.2 ± 3.0 fL                      |
| *PCT  |  | 0.058 ± 0.050 %  | 0.058 ± 0.050 %  | 0.251 ± 0.100 %  | 0.251 ± 0.100 %  | 0.526 ± 0.200 %                   | 0.526 ± 0.200 %                   |
| *PDW  |  | 15.3 ± 3.0   | 15.3 ± 3.0   | 15.7 ± 3.0   | 15.7 ± 3.0   | 16.0 ± 3.0                        | 16.0 ± 3.0                        |
| *P-LCC  |  | 19 ± 10 × 10 <sup>3</sup> /μL  | 19 ± 10 × 10 <sup>9</sup> /L   | 85 ± 22 × 10 <sup>3</sup> /μL  | 85 ± 22 × 10 <sup>9</sup> /L   | 176 ± 30 × 10 <sup>3</sup> /μL    | 176 ± 30 × 10 <sup>9</sup> /L     |
| *P-LCR  |  | 29.4 ± 12.0 %  | 29.4 ± 12.0 %  | 31.3 ± 9.0 %   | 31.3 ± 9.0 %   | 30.7 ± 9.0 %                      | 30.7 ± 9.0 %                      |
| Lymph   |  | 59.0 ± 9.0 %   | 59.0 ± 9.0 %   | 31.4 ± 8.0 %   | 31.4 ± 8.0 %   | 14.4 ± 8.0 %                      | 14.4 ± 8.0 %                      |
| Mid   |  | 11.4 ± 9.0 %   | 11.4 ± 9.0 %   | 8.0 ± 7.0 %  | 8.0 ± 7.0 %  | 5.1 ± 4.5 %                       | 5.1 ± 4.5 %                       |
| Gran  | 29.6 ± 9.0 %   | 29.6 ± 9.0 %   | 60.6 ± 8.0 %   | 60.6 ± 8.0 %   | 80.5 ± 9.0 %   | 80.5 ± 9.0 %                      |                                   |
| Lymph#  | 1.2 ± 0.2 × 10 <sup>3</sup> /μL  | 1.2 ± 0.2 × 10 <sup>9</sup> /L                                       | 2.5 ± 0.7 × 10 <sup>3</sup> /μL                                      | 2.5 ± 0.7 × 10 <sup>9</sup> /L                                       | 3.0 ± 1.7 × 10 <sup>3</sup> /μL                                      | 3.0 ± 1.7 × 10 <sup>9</sup> /L    |                                   |
| Mid#  | 0.2 ± 0.2 × 10 <sup>3</sup> /μL  | 0.2 ± 0.2 × 10 <sup>9</sup> /L                                       | 0.6 ± 0.6 × 10 <sup>3</sup> /μL                                      | 0.6 ± 0.6 × 10 <sup>9</sup> /L                                       | 1.1 ± 1.0 × 10 <sup>3</sup> /μL                                      | 1.1 ± 1.0 × 10 <sup>9</sup> /L    |                                   |
| Gran#   | 0.6 ± 0.2 × 10 <sup>3</sup> /μL  | 0.6 ± 0.2 × 10 <sup>9</sup> /L                                       | 4.9 ± 0.7 × 10 <sup>3</sup> /μL                                      | 4.9 ± 0.7 × 10 <sup>9</sup> /L                                       | 16.5 ± 1.9 × 10 <sup>3</sup> /μL                                     | 16.5 ± 1.9 × 10 <sup>9</sup> /L   |                                   |

\* For Research Use Only.  
Before using, refer to the instruction sheet for mixing directions.

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# BC-3D

## HEMATOLOGY CONTROLS

CONTROL

## ASSAY VALUES AND EXPECTED RANGES

LOT B0523



2023-08-05

| Instrument | Parameter | Low                               |                                   | Normal                            |                                   | High                              |                                   |
|------------|-----------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|            |           | LOT B0523L                        | LOT B0523N                        | LOT B0523H                        | LOT B0523H                        |                                   |                                   |
|            |           | The U.S. Units                    | The International Units           | The U.S. Units                    | The International Units           | The U.S. Units                    | The International Units           |
| BC-3200    | WBC       | 2.1 ± 0.5 × 10 <sup>9</sup> /μL   | 2.1 ± 0.5 × 10 <sup>9</sup> /L    | 8.3 ± 1.0 × 10 <sup>9</sup> /μL   | 8.3 ± 1.0 × 10 <sup>9</sup> /L    | 21.2 ± 2.5 × 10 <sup>9</sup> /μL  | 21.2 ± 2.5 × 10 <sup>9</sup> /L   |
|            | RBC       | 2.37 ± 0.18 × 10 <sup>6</sup> /μL | 2.37 ± 0.18 × 10 <sup>12</sup> /L | 4.54 ± 0.24 × 10 <sup>6</sup> /μL | 4.54 ± 0.24 × 10 <sup>12</sup> /L | 5.61 ± 0.30 × 10 <sup>6</sup> /μL | 5.61 ± 0.30 × 10 <sup>12</sup> /L |
|            | HGB       | 6.1 ± 0.4 g/dL                    | 61 ± 4 g/L                        | 13.5 ± 0.6 g/dL                   | 135 ± 6 g/L                       | 18.3 ± 0.8 g/dL                   | 183 ± 8 g/L                       |
|            | HCT       | 18.0 ± 1.5 %                      | 18.0 ± 1.5 %                      | 39.6 ± 2.0 %                      | 39.6 ± 2.0 %                      | 54.0 ± 2.4 %                      | 54.0 ± 2.4 %                      |
|            | MCV       | 76.1 ± 5.0 fL                     | 76.1 ± 5.0 fL                     | 87.3 ± 5.0 fL                     | 87.3 ± 5.0 fL                     | 96.2 ± 5.0 fL                     | 96.2 ± 5.0 fL                     |
|            | MCH       | 25.7 ± 2.5 pg                     | 25.7 ± 2.5 pg                     | 29.7 ± 2.5 pg                     | 29.7 ± 2.5 pg                     | 32.6 ± 2.5 pg                     | 32.6 ± 2.5 pg                     |
|            | MCHC      | 33.8 ± 3.0 g/dL                   | 338 ± 30 g/L                      | 34.1 ± 3.0 g/dL                   | 341 ± 30 g/L                      | 33.9 ± 3.0 g/dL                   | 339 ± 30 g/L                      |
|            | *RDW      | 15.5 ± 3.0 %                      | 15.5 ± 3.0 %                      | 14.3 ± 3.0 %                      | 14.3 ± 3.0 %                      | 13.5 ± 3.0 %                      | 13.5 ± 3.0 %                      |
|            | PLT       | 74 ± 20 × 10 <sup>3</sup> /μL     | 74 ± 20 × 10 <sup>9</sup> /L      | 261 ± 40 × 10 <sup>3</sup> /μL    | 261 ± 40 × 10 <sup>9</sup> /L     | 540 ± 60 × 10 <sup>3</sup> /μL    | 540 ± 60 × 10 <sup>9</sup> /L     |
|            | *MPV      | 8.2 ± 3.0 fL                      | 8.2 ± 3.0 fL                      | 7.8 ± 3.0 fL                      | 7.8 ± 3.0 fL                      | 7.6 ± 3.0 fL                      | 7.6 ± 3.0 fL                      |
|            | Lymph     | 51.5 ± 12.0 %                     | 51.5 ± 12.0 %                     | 29.5 ± 8.0 %                      | 29.5 ± 8.0 %                      | 15.0 ± 6.0 %                      | 15.0 ± 6.0 %                      |
|            | *Mid      | 15.0 ± 10.0 %                     | 15.0 ± 10.0 %                     | 8.5 ± 8.0 %                       | 8.5 ± 8.0 %                       | 7.0 ± 6.0 %                       | 7.0 ± 6.0 %                       |
|            | Gran      | 33.5 ± 9.0 %                      | 33.5 ± 9.0 %                      | 62.0 ± 8.0 %                      | 62.0 ± 8.0 %                      | 78.0 ± 8.0 %                      | 78.0 ± 8.0 %                      |
|            | Lymph#    | 1.1 ± 0.3 × 10 <sup>3</sup> /μL   | 1.1 ± 0.3 × 10 <sup>9</sup> /L    | 2.4 ± 0.7 × 10 <sup>3</sup> /μL   | 2.4 ± 0.7 × 10 <sup>9</sup> /L    | 3.2 ± 1.3 × 10 <sup>3</sup> /μL   | 3.2 ± 1.3 × 10 <sup>9</sup> /L    |
|            | *Mid#     | 0.3 ± 0.2 × 10 <sup>3</sup> /μL   | 0.3 ± 0.2 × 10 <sup>9</sup> /L    | 0.7 ± 0.7 × 10 <sup>3</sup> /μL   | 0.7 ± 0.7 × 10 <sup>9</sup> /L    | 1.5 ± 1.3 × 10 <sup>3</sup> /μL   | 1.5 ± 1.3 × 10 <sup>9</sup> /L    |
|            | Gran#     | 0.7 ± 0.2 × 10 <sup>3</sup> /μL   | 0.7 ± 0.2 × 10 <sup>9</sup> /L    | 5.2 ± 0.7 × 10 <sup>3</sup> /μL   | 5.2 ± 0.7 × 10 <sup>9</sup> /L    | 16.5 ± 1.7 × 10 <sup>3</sup> /μL  | 16.5 ± 1.7 × 10 <sup>9</sup> /L   |

\* For new software version 01.07.00 or greater.

Before using, refer to the instruction sheet for mixing directions.

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