

## Certificate of Analysis

Certificate No: BMDX/COA/P/163/2025

**Product Name:** Columbia Agar with 5% Horse Blood / MacConkey III

**Product Code:** SP90C2032

**Lot No:** 2501021001

**Expiry date:** 06/01/2026

**Date of Analysis:** 21/10/2025 – 22/10/2025

**Parameter Requirement:** Physical, Chemical and Microbiological Analysis

| Physical & Chemical Test | Specification                                       | Results |
|--------------------------|-----------------------------------------------------|---------|
| Color                    | Columbia Agar with 5% Horse Blood: Red              | Passed  |
|                          | MacConkey III Agar: Dark red colored gel            | Passed  |
|                          | Columbia Agar with 5% Horse Blood: $7.3 \pm 0.2$    | Passed  |
| pH                       | MacConkey III Agar: $7.1 \pm 0.2$                   | Passed  |
|                          | Semi-solid with a firm, smooth, & bounces surface   | Passed  |
| Hardness                 | Columbia Agar with 5% Horse Blood: 3.00mm to 3.50mm | Passed  |
| Pour Depth/Thickness     | MacConkey III Agar: 3.00mm to 3.50mm                | Passed  |

| Microbiological Test                                                                              | Specification                                    | Results |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------|---------|
| <b>Columbia Agar with 5% Horse Blood:</b>                                                         |                                                  |         |
| <i>E. coli</i> ATCC® 25922                                                                        | Growth at 24 hours, beta hemolysis               | Passed  |
| <i>E. faecalis</i> ATCC® 29212                                                                    | Growth at 24 hours, gamma hemolysis              | Passed  |
| <i>S. pyogenes</i> ATCC® 19615                                                                    | Growth at 24 hours, beta hemolysis               | Passed  |
| <i>S. pneumoniae</i> ATCC® 6305                                                                   | Growth at 24 hours, alpha hemolysis              | Passed  |
| <i>C. albicans</i> ATCC® 60193                                                                    | Growth at 24 hours, white colonies, no hemolysis | Passed  |
| Uninoculated plate                                                                                | No growth                                        | Passed  |
| <b>MacConkey III Agar:</b>                                                                        |                                                  |         |
| <i>E. coli</i> ATCC® 25922                                                                        | Pink to red growth                               | Passed  |
| <i>P. mirabilis</i> ATCC® 12453                                                                   | Growth colorless inhibition of swarming          | Passed  |
| <i>Salmonella choleraesuis</i> subsp. <i>choleraesuis</i> serotype <i>Typhimurium</i> ATCC® 14028 | Growth. Colorless                                | Passed  |
| <i>E. faecalis</i> ATCC® 29212                                                                    | No growth                                        | Passed  |
| <i>S. aureus</i> ATCC® 25923                                                                      | No growth                                        | Passed  |
| Uninoculated plate                                                                                | No growth                                        | Passed  |

### Sample statement:

- Culture media were prepared according to procedure SP-PD-BMDX-02 Production Process Control and SP-PD-BMDX-11 Product Specification.
- Culture media were kept at temperature conditions 2-8°C.
- QC Organisms were prepared and followed according to procedure SP-QC-BMDX-07 Quality Control Testing and SP-PD-BMDX-11 Product Specification.



**Result:**

The information given is believed to be correct, all results reported in this certificate relate only to the product in this certificate of analysis according to SP-PD-BMDX-11 Product Specification.

**Sign by:**

**Fairuz Ayuni Binti Abdul Halim**

**QC Executive**

BSc. in Microbiology with Honours

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**Date:** 22/10/2025



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