

## Certificate of Analysis

Certificate No: BMDX/COA/P/401/2026

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

**Product Code:** SP90C2032

**Lot No:** 260415004

**Expiry date:** 01/07/2026

**Date of Analysis:** 16/04/2026 – 21/04/2026

**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
pH	Columbia Agar with 5% Horse Blood: 7.3 ± 0.2	Passed
	MacConkey III Agar: 7.1 ± 0.2	Passed
Hardness	Semi-solid with a firm, smooth, & bounces surface	Passed
Pour Depth/Thickness	Columbia Agar with 5% Horse Blood: 3.00mm to 3.50mm	Passed
	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 subsp. choleraesuis serotype 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

Universiti Putra Malaysia

**Date:** 22/04/2026

