

Certificate of Analysis

HALF FRASER (DEMI-FRASER) BROTH

Lot No: 209705

Catalog No. FBH002/FBH005 Exp. Date: NOV.05.2021

PHYSICAL CHARACTERISTICS

<u>SPECIFICATION</u> <u>EXPECTED RESULTS</u> <u>ACTUAL RESULTS</u>

<u>Dehydrated</u>: Appearance Homogenous, free-flowing powder Homogenous, free-flowing powder

Color Beige Beige

Prepared: Clarity Clear Clear

Color Yellow Yellow

Precipitate None to Slight None to Slight 7.2 ± 0.2 @ 25°C 7.2 @ 25°C

<u>pH</u>: $7.2 \pm 0.2 \otimes 25^{\circ}$ C 7.2

CULTURAL RESPONSE – tested in compliance to ISO 11133:2014 (Fertility and Selectivity Testing)

The medium was prepared according to label directions and 10mL volumes inoculated with the organisms listed below. Cultures were incubated at $30 \pm 1^{\circ}$ C under aerobic atmosphere and examined for growth at 22-26 hours. Following incubation, 10μ L of *E. faecalis* and *E. coli* cultures were subcultured onto TSA at $37 \pm 1^{\circ}$ C and examined for growth at 22-26 hours.

| | | APPROX. | EXPECTED RESULTS | | ACTUAL RESULTS | | | |
|------------------------|-------|-------------------|--------------------------------------|-------------------|--------------------|-----------------------|-------------------|--------------------|
| MICROORGANISM | ATCC | INOCULUM (CFU) | Growth in HF | Reaction in HF | Recovery on TSA | Growth in HF | Reaction in HF | Recovery on TSA |
| Enterococcus faecalis | 29212 | > 10 ³ | Partial to Complete Inhibition | _ | < 100 cfu | Meets Expected Result | | |
| Enterococcus faecalis | 19433 | > 10 ³ | Partial to Complete Inhibition | _ | < 100 cfu | Meets Expected Result | | |
| Escherichia coli | 25922 | > 10 ³ | Inhibition | _ | < 10 cfu | Meets Expected Result | | |
| Escherichia coli | 8739 | > 10 ³ | Inhibition | _ | < 10 cfu | Meets Expected Result | | |
| Listeria innocua | 33090 | 10-100 | Growth | Blackening | NA | Meets Expected Result | | |
| Listeria monocytogenes | 35152 | 10-100 | Growth | Blackening | NA | Meets Expected Result | | |
| Listeria monocytogenes | 13932 | 10-100 | Growth | Blackening | NA | Me | ets Expected | Result |

(Productivity Testing)

The medium was prepared according to label directions and 10mL volumes inoculated as a mixed culture using the organisms listed below. Cultures were incubated at $30 \pm 1^{\circ}\text{C}$ under aerobic atmosphere for 22-26 hours followed by subculture onto Listeria Agar* at $37 \pm 1^{\circ}\text{C}$ and plates examined for growth at 40-48 hours.

| | | | EXPECTED | RESULTS | ACTUAL RESULTS | |
|-------------------------|-------------|------------------------|----------------------------------|---|----------------------------------|----------------------------------|
| Mixed Culture Testing | <u>ATCC</u> | APPROX. INOCULUM (CFU) | Recovery on Listeria Agar* | Reaction on Listeria Agar* | Recovery on Listeria Agar* | Reaction on Listeria Agar* |
| Enterococcus faecalis + | 29212 | > 10 ³ | Inhibited | | Meets Expe | ected Result |
| Escherichia coli + | 25922 | $>10^{3}$ | Inhibited | | Meets Expe | ected Result |
| Listeria monocytogenes | 35152 | 10-100 | >10 cfu | Blue colonies with opaque halo | Meets Expe | ected Result |
| Enterococcus faecalis + | 19433 | > 10 ³ | Inhibited | _ | Meets Expe | ected Result |
| Escherichia coli + | 8739 | $>10^{3}$ | Inhibited | _ | Meets Expected Resul | |
| Listeria monocytogenes | 13932 | 10-100 | >10 cfu | Blue colonies with opaque halo | Meets Expe | ected Result |

^{*}according to Ottaviani and Agosti

ANIMAL DERIVED MATERIAL COUNTRY OF ORIGIN INFORMATION

| ANIMAL DERIVED MATERIAL | TISSUE SOURCE/ RISK CATEGORY* | ANIMAL SPECIES | <u>COUNTRY OF</u> <u>ORIGIN</u> | CERTIFICATE OF SUITABILITY |
|----------------------------|----------------------------------|-------------------|------------------------------------|-------------------------------|
| Animal Tissue | Lung / B* | Bovine | Australia, New Zealand | N/A |
| Casein | Milk/ B* | Bovine | New Zealand, Australia | N/A |
| Enzyme | Pancreas/ NA** | Porcine | United States, Canada | N/A |
| Beef Extract | Skeletal Muscle/Bone/ B* | Bovine | United States, New Zealand | R1-CEP 2001-299 |

^{*} Risk Categories as defined by the European Pharmacopeia.

Product was tested in compliance to the regulation noted above. Where a regulation is not referenced, standard test methods were observed. Variances in data may occur. External factors such as adverse storage conditions or contamination of product may cause loss in performance. Solus Scientific certifies that this lot met all quality control specifications for this product.

Gillian Bradley - Quality Manager

Date: Thursday, November 14, 2019

Solus Scientific Solutions Ltd

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^{**} Not Applicable. "Non-TSE-relevant animal species."