

Certificate of Analysis

HALF FRASER (DEMI-FRASER) BROTH

Lot No: 210464

Catalog No. FBH002/FBH005

Exp. Date: Dec.08.2021

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 |
| <u>Prepared:</u> | Clarity | Clear | Clear |
| | Color | Yellow | Yellow |
| | Precipitate | None to Slight | None to Slight |
| <u>pH:</u> | | 7.2 ± 0.2 @ 25°C | 7.1 @ 25°C |

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 ± 1°C under aerobic atmosphere and examined for growth at 22-26 hours. Following incubation, 10µL of *E. faecalis* and *E. coli* cultures were subcultured onto TSA at 37 ± 1°C and examined for growth at 22-26 hours.

| <u>MICROORGANISM</u> | <u>ATCC</u> | <u>APPROX. INOCULUM (CFU)</u> | <u>EXPECTED RESULTS</u> | | | <u>ACTUAL RESULTS</u> | | |
|-------------------------------|-------------|-------------------------------|--------------------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------------|
| | | | <u>Growth in HF</u> | <u>Reaction in HF</u> | <u>Recovery on TSA</u> | <u>Growth in HF</u> | <u>Reaction in HF</u> | <u>Recovery on TSA</u> |
| <i>Enterococcus faecalis</i> | 29212 | > 10 ³ | Partial to Complete Inhibition | - | < 100 cfu | Meets Expected Result | | |
| <i>Enterococcus faecalis</i> | 19433 | > 10 ³ | Partial to Complete Inhibition | - | < 100 cfu | Meets Expected Result | | |
| <i>Escherichia coli</i> | 25922 | > 10 ³ | Inhibition | - | < 10 cfu | Meets Expected Result | | |
| <i>Escherichia coli</i> | 8739 | > 10 ³ | Inhibition | - | < 10 cfu | Meets Expected Result | | |
| <i>Listeria innocua</i> | 33090 | 10-100 | Growth | Blackening | NA | Meets Expected Result | | |
| <i>Listeria monocytogenes</i> | 35152 | 10-100 | Growth | Blackening | NA | Meets Expected Result | | |
| <i>Listeria monocytogenes</i> | 13932 | 10-100 | Growth | Blackening | NA | Meets 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 ± 1°C under aerobic atmosphere for 22-26 hours followed by subculture onto Listeria Agar* at 37 ± 1°C and plates examined for growth at 40-48 hours.

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

*according to Ottaviani and Agosti

ANIMAL DERIVED MATERIAL COUNTRY OF ORIGIN INFORMATION

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

* Risk Categories as defined by the European Pharmacopeia.

** Not Applicable. “Non-TSE-relevant animal species.”

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: Wednesday, December 18, 2019

Solus Scientific Solutions Ltd

9 Mansfield Networkcentre, Millennium Business Park, Concorde Way, Mansfield, Nottinghamshire NG19 7JZ
Tel +44 (0)1623 429701 **Fax** +44 (0)1623 620977 **Email** enquiries@solusscientific.com
Web www.solusscientific.com

Registered Address: East Kilbride Laboratory, Torus Building, Rankine Avenue, East Kilbride, Glasgow, Lanarkshire G75 0QF Company Reg. No. SC361616, Registered in Scotland VAT No 982 2304 24