

## Certificate of Analysis

### HALF FRASER (DEMI-FRASER) BROTH

Lot No: 210459

Catalog No. FBH002/FBH005

Exp. Date: Dec.09.2021

#### 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 <sup>3</sup>	Partial to Complete Inhibition	-	< 100 cfu	Meets Expected Result		
<i>Enterococcus faecalis</i>	19433	> 10 <sup>3</sup>	Partial to Complete Inhibition	-	< 100 cfu	Meets Expected Result		
<i>Escherichia coli</i>	25922	> 10 <sup>3</sup>	Inhibition	-	< 10 cfu	Meets Expected Result		
<i>Escherichia coli</i>	8739	> 10 <sup>3</sup>	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 <sup>3</sup>	Inhibited	Blue colonies with opaque halo	Meets Expected Result	
Escherichia coli +	25922	>10 <sup>3</sup>	Inhibited		Meets Expected Result	
Listeria monocytogenes	35152	10-100	>10 cfu		Meets Expected Result	
Enterococcus faecalis +	19433	> 10 <sup>3</sup>	Inhibited	-	Meets Expected Result	
Escherichia coli +	8739	>10 <sup>3</sup>	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

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