

Certificate of Analysis

HALF FRASER (DEMI-FRASER) BROTH

Lot No: 210461

<u>pH</u>:

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 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 $30 \pm 1^{\circ}$ 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	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 $30 \pm 1^{\circ}\text{C}$ 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	ATCC	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 + Listeria monocytogenes	8739 13932	>10 ³ 10-100	Inhibited >10 cfu	Blue colonies with opaque	Meets Expe	ected Result ected Result
				halo		

^{*}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: Wednesday, December 18, 2019

Solus Scientific Solutions Ltd

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