

FB1 Supplement A

Catalog : HB4193-5a

FB1 supplement A should be used with FB1 supplement B.

Add one piece of FB1 supplement A and one piece of FB1 supplement B into 225ml of Fraser Medium to make a Half-Fraser Broth.

Half-Fraser Broth is used for selective enrichment culture of *Listeria monocytogenes*.

Approximate Formula:

Ingredients	Content(2ml)
Ammonium ferric citrate	0.1125g
Each bottle of Fraser Medium should be supplemented with 1 box of FB1 supplement A	

Directions:

Suspend 55.0g of Fraser Medium in one liter of distilled water. Mix with frequent agitation to completely dissolve the powder. Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes. Cool to room temperature. To prepare Half-Fraser broth, dispense into 225ml, add 1 piece of FB1 supplement A and 1 piece of FB1 supplement B.

Note: Do not heat to dissolve the powder.

Principle and Interpretation:

Listeria hydrolyzed esculin by b-D-glucosidase into esculetin and glucose. The esculetin then reacted with ammonium ferric citrate to produce a black substance that makes the medium black. Most non-target bacteria are inhibited and grow poorly in this medium, or do not cleave esculin after growth, so there is no black substance or disappearance of fluorescence.

Appearance:

The prepared medium is a brown transparent liquid

Precautions:

This medium is for laboratory use only. The medium which is past shelf life or color variation cannot be used.

Storage conditions and Shelf life:

FB1 supplement A must be stored tightly capped in the original container at 2-25°C.

The recommended optimal storage temperature for long terms is 2-8°C.

Quality control:

Add one piece into 225mL Fraser Medium.

Cultural characteristics observed after aerobic incubation at $36 \pm 1^\circ\text{C}$ for 48 ± 2 hours.

Microorganism	Strains Number	Inoculum (CFU)	Recovery
<i>Listeria Monocytogenes</i>	ATCC19114	20-200	Good/blackening of the medium
<i>Escherichia coli</i>	ATCC25922	1000-5000	Partial to complete inhibition
<i>Enterococcus faecalis</i>	ATCC29212	1000-5000	Partial to complete inhibition
<i>Listeria innocua</i>	ATCC33090	20-200	Good/blackening of the medium

References

1. Fraser and Sperber. 1988. J. Food Prot. 51:762.
2. L'association française de normalisation (AFNOR). 1993. Food microbiology- Detection of *Listeria monocytogenes*-Routine method, V 08-055. AFNOR, Paris, France.