Technical Data

Capsule Stains-Kit K004L

Intended Use
Capsule Stain-Kit is recommended for staining bacterial capsule against dark background.

Composition**

Methylene Blue (aqueous)(S021)	
Ingredients	-
Methylene blue	0.500 gm
Distilled water	100.000 ml
Nigrosin stain, 10% w/v (S025)	
Ingredients	-
Nigrosin	10.000 gm
Formalin	0.500 ml
Distilled water	100.000 ml

**Formula adjusted, standardized to suit performance parameters

Directions
For Capsule Staining: Using Nigrosin (S025)

1. To a loopful of cerebrospinal fluid, or to a light aqueous or saline suspension of growth from an agar culture, add a loopful of Nigrosin (S025).
2. Mix well and cover with a thin cover glass. If only a few organisms are present, centrifugation of the cerebrospinal fluid may be necessary.
3. Examine promptly with a high power lens. Light may have to be reduced by lowering the condenser. Oil immersion may be used, if higher magnification is required.

For Capsule Staining:Using Methylene Blue (S021)

1. Transfer aseptically a loopful of culture on a clean and dry slide.
2. Mix it with a loopful of aqueous Methylene Blue (S021).
3. Make a smear by using a glass slide.
4. Allow it to air dry slowly.
5. Observe under oil immersion objective..

Principle And Interpretation
Capsules are composed of mucoid polysaccharides of polypeptides. Extracellular capsules are detected by capsule staining. A generally accepted technique for staining capsules employs India ink, nigrosin or congo red (all negative stains) as background material against which the unstained organisms stand out. By counterstaining with dyes like crystal violet or methylene blue, bacterial cell wall takes up the dye. Capsules appear colourless with stained cells against dark background.

Type of specimen
Clinical samples; food & dairy samples; Water samples

Specimen Collection and Handling:
For clinical samples follow appropriate techniques for handling specimens as per established guidelines. For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines. For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards. After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :
In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidleines should be followed while handling clincal specimens. Saftey guidelines may be referred in individual safety data sheets

Limitations
1. Capsules are more delicate. For this reason, using heat during the staining process should be avoided given that capsules would be easily destroyed.
2. Rinsing the slide with water is also avoided in capsule staining because it would dislodge the capsule.

Performance and Evaluation

Performace of the product is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Microscopic Examination

Negative staining was carried out and observed under oil immersion lens.

Results

Capsule: Clear halos against dark background

Storage and Shelf Life

Store between 10- 30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (1, 2).

Reference

1. Collee J. G./Fraser A.G., Marmion B.P./Simmons A., 1996, 14th ed., MACKIE McCARTNEY, PRACTICAL MEDICAL MICROBIOLOGY: 45(800-802)
2. George Clark et al, 1981, 4th ed., Staining procedures: 17(380-382)
3. Godkar B. P., 1996, Textbook of medical laboratory technology: 23(316)

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IVD	In vitro diagnostic medical device
CE	CE Marking
10°C 30°C	Storage temperature
	Do not use if package is damaged
	HiMedia Laboratories Pvt. Limited, B /4-6 , MIDC, Dindori, Nashik MH www.himedialabs.com
EC REP	CE Partner 4U ,Esdoornlaan 13, 3951 DB Maarn The Netherlands, www.cepartner 4u.eu