K9131B BUTYRATE DISCS

DISCUSSION:
Branhamella (Moraxella) catarrhalis, once thought to be non-pathogenic, is now considered a possible agent in respiratory infections. Because this organism can be found at the same sites as pathogenic Neisseria spp. and shares some physiological and biochemical characteristics, it is important to have a screening test for differentiation of *Branhamella catarrhalis*(1,2). Used in conjunction with other tests, butyrate discs achieve this by demonstrating the enzymatic hydrolysis of bromo-chloro-indolyl butyrate which creates a blue reaction. *Neisseria* spp. do not hydrolyze this substrate and will remain colorless.

QUALITY CONTROL:
Butyrate discs should be tested with known positive and negative organisms as outlined in the Manual for Clinical Microbiology. We suggest *B. catarrhalis* ATCC 25240 (positive) and *N. gonorrhoeae* ATCC 19424 (negative). All finished tests should be discarded in a manner appropriate for biohazardous materials.

STORAGE: Store in tightly closed bottle at <0°C, in the dark.

MATERIALS REQUIRED:
Butyrate discs are provided in a bulk pack of 50 discs. The test requires fresh 24 hour growth on plated chocolate, blood agar, or other appropriate culture media. Also required but not provided: Loop or stick for harvesting colonies, Pipettes, Purified water (pH 6.5-7.5).

REFERENCES:

INSTRUCTIONS FOR USE:
1. Place a disc onto a slide and moisten slightly, using enough water to keep the disc moist throughout incubation but do not over moisten. As an alternative, you may place a disc in a tube with 1 drop of water.
2. Inoculate with a visible paste of the organism in question, then wait for 5-15 minutes. (Incubation is not necessary. At 5 minutes, the reaction in a tube will be brighter than the reaction on a slide. The color reaction will darken upon standing using either method. Do not hold the test longer than 30 minutes as false positives will occur.
3. The development of a blue color indicates *Branhamella catarrhalis*. A negative test will be colorless.

LIMITATIONS: This is only part of the overall scheme for identification. Further tests are necessary for confirmation. Many strains of *Moraxella* as well as some other organisms are also butyrate esterase positive while most *Neisseria* spp. are negative.

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