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Section: Technical Manual	Subject Title: Indole Test	
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INDOLE TEST

Principle

Bacteria that produce the enzyme tryptophanase will deaminate tryptophan to indole, pyruvic acid and ammonia in the presence of a co-enzyme pyridoxal phosphate.

Indole combines with Ehrlich's / Kovac's reagent to form a red-coloured complex.

Materials

Test A: Filter paper strips impregnated with Ehrlich's reagent.

Test B: Kovac's reagent
2% Tryptone broth (Difco, Oxoid)

Method

A: Filter paper strips are suspended over tubes of ONPG / PAM media, and incubated at 35⁰C overnight.

Interpretation

Positive test - development of red colour on the strip.

Negative test - white-yellow colour.

- B:
1. Inoculate the tryptone broth, and incubate at 35⁰C overnight.
 2. Add a few drops of Kovac's reagent to the broth.

Interpretation

Positive test - red colour in the upper layer.

Negative test - light-yellow colour in the upper layer.

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Quality Control

Test the following positive and negative controls weekly:

Positive: *Proteus vulgaris* (ATCC 13315)

Negative: *Klebsiella pneumoniae* (ATCC 13883)

Reference

1. Murray, PA, et al. Manual of Clinical Microbiology 7th ed. 1999.