

Urea

Intended Use:

- Tests for the presence of the enzyme urease.
- Differentiates *Proteus* spp. from other members of the Enterobacteriaceae family based on urease production.

Principle:

- Contains phenol red indicator which is yellow under acidic conditions, but turns pink/red under neutral/basic conditions.
- The urease enzyme is required for the breakdown of urea to occur. When organisms utilize urea, ammonia is produced, increasing the pH of the media and producing a red/pink color change.

Test Procedure:

- Using a heavy inoculum (2 loop-full's from an 18-24 hour pure culture), inoculate a urea broth tube.
- Incubate at 37°C for 24-48 hours.

Results:

The formation of a pink/red color indicates a positive test for urease production.

Limitations:

Variations in size of inoculum can effect the time required for incubation.

