

TML/MSH Microbiology Department Policy & Procedure Manual	Policy # MI\TECH\45\v01	Page 1 of 1
Section: Technical Manual	Subject Title: Tetrazolium Reduction Test (TTC)	
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TETRAZOLIUM REDUCTION TEST (TTC)

Principle

To differentiate between *E. faecalis* and *E. faecium*.

E. faecalis reduces the colorless compound (Tetrazolium-chloride) to an insoluble substance - formozan which is red.

Material

BHI broth/Tetrazolium-chloride (TTC)

Procedure

Inoculate a loopful of an overnight plate culture to 1 ml of TTC broth. Incubate at 35⁰C and observe the reaction at 2 hours. If negative, reincubate up to 8 hours / overnight.

Interpretation

Positive - deep magenta

Negative - colourless or faint pink

Quality Control

Positive: *E. faecalis* (ATCC 29212)

Negative: *E. faecium* (ATCC 19434)

References

1. J. Gen. Microbiology (1965), 38, 279-287.