MUG DISKS

- For in vitro use only -

Catalogue No. DM95

Our MUG Disks are used to aid in the detection of *Escherichia coli*, and to help differentiate between *Streptococcus equisimilis* and *Streptococcus anginosus* (also known as *S. milleri).*

Organisms possessing the enzyme ß-glucuronidase can hydrolyze MUG (4-methylumbelliferyl-ß-D-glucuronide) releasing the fluorescent end product, 4-methylumbelliferone. Detection of this end product can be made visually under a long-wave (365 nm) UV light source, as 4-methylumbelliferone fluoresces bluish-white to blue-green. Studies conducted by Feng and Hartman showed β-glucuronidase activity in 96% of the strains of *E. coli*, 100% of enterotoxigenic strains of *E. coli*, 17% of *Salmonella* species, and 40% of *Shigella* species.

Recommended Procedure

1. Place disk in an empty petri dish.
2. Moisten slightly with sterile saline.
3. Using a sterile inoculating loop, inoculate the moistened disk with the organism to be tested.
4. Incubate for 30 minutes at 35°C.
5. Examine under a long-wave UV light for fluorescence.

Interpretation of Results

Positive: Fluorescence

Negative: No fluorescence

Quality Control

Organism	Expected Results	
Escherichia coli ATCC 25922	+ve	Fluorescence
Proteus mirabilis ATCC 12453	-ve	No fluorescence

Storage and Shelf Life

MUG Disks should be stored at -20°C. At this temperature they have a shelf life of 32 weeks from the date of manufacture.

References

1. Lawrence J, Yajko DM, Hudley WK. J Clin Micro 1985; 22:772-777.
2. Feng PCS, Hartman PA. Appl Environ Micro 1982; 43:1320-1329.

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