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For Veterinary Use Only

Fungal Culture System - Dermatophyte Test Medium

Introduction
This fungal culture system is designed to provide a simple and comprehensive analysis of the pathogenic fungus that cause most fungal infections seen in the clinical practice of veterinary medicine.

History / Summary
DTM is a preferred medium for isolation and early detection of members of Microsporum, Trichophyton, and Epidermophyton genera by means of the distinct color change. Rapid growing species may effect a complete medium color change in as few as 2-3 days. The slower growing species will change the indicator in proportionately longer time periods. Other organisms may grow on DTM but can be recognized as non-dermatophytes by the absence of color change. A few organisms, including saprophytes and yeasts are capable of changing the medium form orange to red, but they are easily recognized by their distinctive colonial morphology.

Specimen Collection
Sample collection (critical to successful culturing of dermatophytes): Samples can be collected from any animal species with a suspected dermatophyte infection. the site should be cleaned if grossly contaminated. Soap and water may be used gently to avoid mechanical removal of infected material. A gauze sponge soaked in 70% alcohol may be laid over the sample site for 30 seconds or wiped gently over the site. Let the site dry before collecting sample. Clean forceps and/or scalpel may be used to obtain infected hairs, skin scales and crusts. The periphery of active lesions is the best area to obtain the samples. Fluorescing hairs and skin fragments observed under a Wood's lamp are excellent specimens.

Procedure
Allow vial or plate to warm to room temperature before inoculation. As soon as possible after receipt, the specimen should be inoculated onto the DTM Agar surface. Transfer specimen to agar surface and gently implant specimen in the surface of the agar. Specimens may contain fragments of skin, nails, hair, pus, etc. Replace lid on plate or cap vial loosely and incubate in the dark at room temperature (25-30ºC) for 10 days maximum. Incubate plates in and inverted position. (Lid on Bottom) Examine vial every 2-3 days for characteristic color change on DTM and colony appearance.

Interpretation
Most pathogenic dermatophytes will produce full color change from yellow orange to red in 3-6 days on the DTM medium while most saprohytic fungi and bacteria are inhibited. Certain strains of yeast (Candida albicans) are capable of converting the indicator to red, but the yeasts can be identified by their white bacteria like colonial appearance on the DTM medium.

Common Dermatophytes
Microsporum canis
DTM Red color change in media
Microsporum gypeseum
DTM Red color change in media
Trichophyton mentagrophytes
DTM Red color change in media
Trichophyton tonsures
DTM Red color change in media
Trichophyton rubrum
DTM Red color change in media
Epidermophyton floccosum
DTM Red color change in media
Trichophyton terrestre
DTM Red color change in media

Limitations
The complete classification of dermatophytes depends upon microscopic observations of direct and slide culture preparations along with physiological and serological tests.

Storage
Store vials or plates at 2-8°C. Vials, and plates in sealed bags are stable at room temperature for up to 90 days. DO NOT ALLOW VIALS TO FREEZE. If vials freeze they cannot be used.

Agar Formulations
On file at Shelby Scientific

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Technical Service
888-650-9907