

ChroMyco® Duo Fungal Culture System

- in-vitro test for veterinary use only -

Introduction

Dermatomycoses are common clinical infections of dogs, cats, cows, horses and other animals. The dermatophytes are mycelial fungi which possess keratolytic properties that allow them to invade skin, nails and hair.

ChroMyco® Duo

ChroMyco® Duo consists of individually wrapped circular two-chambered plates with removable lids that allow for easy inoculation and collection of samples for identification. Each ChroMyco® Duo plate contains both a Dermatophyte Test Medium (DTM) as well as an Enhanced Sporulation Agar (ESA) and is designed to diagnose the most relevant veterinary dermatophytes – Microsporum, Trichophyton and Epidermophyton spp.

DTM contains antibiotics that suppress the growth of saprophytic fungi and contaminating bacteria, while allowing the growth of dermatophytic fungi. These fungi will turn the color of DTM from orange to red. ESA contains supplements to inhibit growth of bacteria and saprophytic fungi, but the color change is from yellow to blue or green. ESA is unique in that it enhances both pigmentation and sporulation of dermatophytes, thus allowing for identification of the fungal isolates.

Collection of Specimen

Fungicidal medications may cause sterilization of the specimen. For best results, several areas should be sampled.

Skin:

1. Snip away surrounding hairs.
2. Scrape fragments with scalpel blade from active disease area, usually a border region, onto side of blade.

Hair and Scalp:

1. Scrape active border areas showing scaling or hair loss with a clean unused toothbrush.

Nails:

1. Using nail clippers or scissors, clip major portion of affected nail.
2. Using scalpel blade, scrape under surface of nail at nailbed junction for tissue.

Inoculation and incubation

Inoculation of media:

1. Transfer fragments (skin, nail, hairs etc.) by rubbing broad side of scalpel blade onto agar surface.
2. Tap specimen lightly. Do not submerge the specimen into the media.
3. Close lid and incubate the plate with the **lid side down**.

Incubation:

1. Incubate the plate with the lid facing down at room temperature for up to **12 days maximum**. False-positives may develop with prolonged incubation.
2. In order to decrease dehydration of the media experienced during extended incubation, plates may be placed in a plastic bag.
3. Examine plate daily after 48 hours for characteristic colour change and colony appearance.

Please Note: Undersurface is view of growth from bottom of dish, through medium.

Microsporum canis

DTM – Red color change in media

ESA – Blue-green color change in media. Fluffy white middle area; golden yellow border; yellow undersurface view.

Microsporum gypseum

DTM – Red color change of media

ESA – Blue-green color change of media. Light brown border, white rapidly spreading mycelium, cream to tan undersurface view

Microsporum nanum

DTM – Red color change of media

ESA – Blue-green color change of media. White to buff (yellowish-brown) with a powdery appearance; undersurface view is initially orange, later red-brown

Microsporum gallinae

DTM – Red color change of media

ESA – Blue-green color change of media. White to pink with a velvety appearance; undersurface view of red pigment that diffuses into the media.

Epidermophyton floccosum

DTM – Red color change to media

ESA – Blue –green color change to media. Restricted growth, olive green to pale yellow growth with brownish undersurface

Trichophyton mentagrophytes

DTM – Red color change in media

ESA – Blue–green color change of media. Granular white sugar like appearance, variable under surface color

Trichophyton rubrum

DTM – Red color change in media

ESA – Blue-green color change in media. White fluffy downy appearance with dark red undersurface view

Trichophyton verrucosum

DTM – Red color change to media

ESA – Blue-green color change in media. Velvety texture and heaped, smaller colonies. White, sometimes yellow or gray undersurface view.

Trichophyton equinum

DTM – Red color change in media

ESA – Blue –green change in media. Cream to tan and velvety with yellow to red-brown undersurface view.

LIMITATIONS: The complete classifications of dermatophytes depends upon microscopic observations of direct and slide culture preparations along with physiological and serological tests.

Store ChroMyco® Duo in an inverted position, lid side down

Plates are stable at temperature between 2 - 25°C for up to the expiry date as indicated on the packaging.

Occasionally small red to reddish brown spots form on the surface of the agar due to precipitation. These spots are not contaminants and have no effect on product performance.

Discard the used ChroMyco™ Duo Plates in the correct way, avoiding the spread of organisms, present on the plates.

Keep out of reach of children

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