

UVIBIO

Diagnosis of microsporidiosis
Direct fluorescence



Recommended procedure

For research use

#B200

10 mL

Intended use

UVIBIO is a fluorochrome which binds to chitin for a rapid diagnosis of microsporidiosis (*Enterocytozoon bieneusi*, *Septata intestinalis*, ...) in stool samples with the UVITEX 2B technique¹.

This procedure was recommended by the the « National microsporidiosis laboratories » in France (Laboratoire de Parasitologie, CHU Clermont-Ferrand, 58 rue Montalembert, 63 000 Clermont-Ferrand).

Composition

1 vial of UVIBIO (Buffer + Uvitex 2B<0.99% + NaN3<0.1%) + 1 IFU

EUH 032 - Contact with acids liberates very toxic gas

EUH 210 - Material Safety Data Sheet available on request or on our website www.ldbiodiagnostics.com

Storage

Store at 4°C, without direct sunlight.

Material required

- UVIBIO (ready to use)
- 1% Evan's blue in PBS (not included)

Preparation of specimens from patients

1. Dilute samples as follows :
 - 1/3 stools diluted in formalin water (for liquid stools)
 - 1/4 stools (for semi-liquid stools)
 - 1/6 stools diluted in formalin water (for heavy stools)
2. Filter through a 50 µm pore mesh sieve
3. Centrifuge the filtrate (>3200 RPM during 5 min)
4. Discard the supernatant.
Keep only the bottom which has to be diluted in PBS pH 7.4 or distilled water (1/3 dilution).
Spread 20 µl of this solution on a microscope slide (spot diameter: 1.3 cm). Let it dry, then fix it with methanol for 5 minutes.

Staining

This whole step has to be performed in a dark room

1. Spread Uvibio on the prepared samples (5 minutes)
2. Rinse with distilled water
3. Counterstaining : Spread 1% Evan's blue in PBS (5minutes)
4. Rinse with distilled water

Reading

Examine smears at x100 with a fluorescence and photonic microscope. Excitation filter: **355 to 425nm** -
Suppression filter: **460 nm** - Lamp from 50 to 100W

Interpretation

Microsporidiosis appear as ovoid shapes ($\approx 1\mu\text{m}$), pale blue with a black background.

To switch the reading with the white light source is necessary for the differentiation between bacteria and microsporidian spores: bacteria are refringent and microsporidian spores become invisible or blurred.

A clear fluorescence is specific for microsporidian spores, emphasized on the outskirts, even if the intensity is low.

The confirmation of positive samples with another technique is recommended.

¹Van Gool, T., F. Snijders, P. Reiss, J. K. Eeftinck Schattenkerk, M. A. van den Bergh Weerman, J. F. Bartelsman, J. J. Bruins, E. U. Canning, and J. Dankert, Diagnosis of Intestinal and Disseminated Microsporidial Infections in Patients with HIV by a New Rapid Fluorescence Technique, *Journal of Clinical Pathology*, 1993, 46(8):694–99.

UPDATE NOTIFICATION – Please read carefully

RELEASE DATE	VERSION	MODIFICATION SUMMARY
01/09/2021	Vs 03	Addition of composition + EUH032 + contact email
09/05/2023	Vs 04	New address



NF EN ISO 13485

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