

ELISA-VIDITEST *Aspergillus fumigatus*



SEM color photomicrograph of *Aspergillus fumigatus*.

VIDIA new immunoenzymatic kits

- intended for the quantitative and semiquantitative detection of specific IgA, IgM and IgG antibodies in human serum and plasma.

... the way to
the correct
results



IgA
ANTIBODY
RESPONSE

evidence for
acute infection



IgM
ANTIBODY
RESPONSE

evidence for
acute infection



IgG
ANTIBODY
RESPONSE

evidence for late acute
infection and re-infection

Serological diagnostics

A serological examination to detect antibodies against *Aspergillus fumigatus* antigens is very useful in the diagnosis of aspergilloma and allergic bronchopulmonary aspergillosis (ABPA), two forms of aspergillosis seen in immunocompetent individuals. Early serological diagnosis and subsequent adequate antifungal therapy is also necessary in the case of pulmonary invasive aspergillosis (IA), which progresses very quickly and often with fatal consequences in the immunocompromised population.

Benefits of the kits

- Quantitative and semiquantitative evaluation of antibodies
- Diagnosis of acute and chronic aspergillosis
- Sample: human serum and plasma



ELISA-VIDITEST

**Kits come from our own
research, development
and production.**

We are VIDIA spol. s r. o.
Czech biotechnological
company with a wide
range of kits for diagnostic
examination. We develop our
products with high quality.

ELISA-VIDITEST

Aspergillus fumigatus

Aspergillus fumigatus is one of the most widespread airborne saprophytic fungi. The incidence of invasive fungal infections has increased dramatically in recent decades, especially in immunocompromised patients, including those on immunosuppressive therapy, autoimmune or neoplastic disease, organ transplant recipients, and AIDS patients. *A. fumigatus* is the most common etiologic agent, responsible for approximately 90% of human infections. The clinical picture of infections manifests itself in a wide spectrum. The patient's immune system plays a very important role in recognizing inhaled fungi, controlling growth, and regulating the body's inflammatory response to infection.

Systemic *A. fumigatus* infections are associated with high mortality, therefore early diagnosis and treatment in the immunocompromised population is important. Additionally, it causes chronic lung infections, allergic bronchopulmonary aspergillosis (ABPA) or allergic disease in immunocompetent individuals. It causes 4-12 % of all nosocomial infections.

Immunoenzymatic ELISA-VIDITEST tests are intended for the diagnosis of fungal infections and other diseases caused by *A. fumigatus*. They help identify patients with invasive aspergillosis (IA), aspergilloma or ABPA in time and start adequate therapy.

Test principle and step by step procedure



1. step

- Preparation of reagents and samples
- Dilution, pipetting and the whole measuring process occurs in the VIDIMAT analyser completely automatically

2. step

- Pipetting of 100 µl controls and diluted samples into wells
- Binding of primary antibodies to antigens occurs on the solid surface of the wells
- Incubation for 30 minutes at 37 °C
- Suction and washing of the wells 4× 250 µl with the washing solution

3. step

- Pipetting of 100 µl of peroxidase conjugate
- Binding of secondary antibody labelled by an enzyme to the primary antibody occurs during incubation
- Incubation for 30 minutes at 37 °C
- Suction and washing of the wells 4× 250 µl with the washing solution

4. step

- Pipetting of 100 µl of chromogen substrate solution TMB
- Reaction of enzyme and substrate occurs
- Incubation for 15 minutes at RT
- Pipetting of 100 µl of the STOP solution

5. step

- Measurement of absorption at 450/620-690 nm in 10 minutes from stopping the reaction
- Evaluation of the test result occurs completely automatically in VIDIMAT analyser

Benefits of the measurement

- Quantitative and semiquantitative evaluation of IgA, IgM and IgG antibodies
- Diagnosis of mycotic infections and other diseases caused by *A. fumigatus*
- Determination of the concentration of the antibody in the examined sample (AU/ml) using the E-CALCULATOR software
- Specific native antigen
- Sample: human serum and plasma
- High diagnostic specificity and sensitivity
- Colour-coded reagents in r.t.u.
- Unified incubation times, temperatures, reagents for ELISA-VIDITEST and MONO-VIDITEST
- Manual or automatic test processing in our analyzer VIDIMAT



VIDIMAT

We provide a precise automatic analyser for easy solutions of the infection serology automatization in cassette and microtiter plate format.

VIDIA kits



REF	Product	Evaluation	Incubation	Sample	Number of tests	VIDIMAT
ODZ-512	anti-Aspergillus fumigatus IgG	semiquant., quant.	30' / 30' / 15'	serum, plasma	96	✓ NEW
ODZ-513	anti-Aspergillus fumigatus IgM	semiquant., quant.	30' / 30' / 15'	serum, plasma	96	✓ NEW
ODZ-514	anti-Aspergillus fumigatus IgA	semiquant., quant.	30' / 30' / 15'	serum, plasma	96	✓ NEW



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