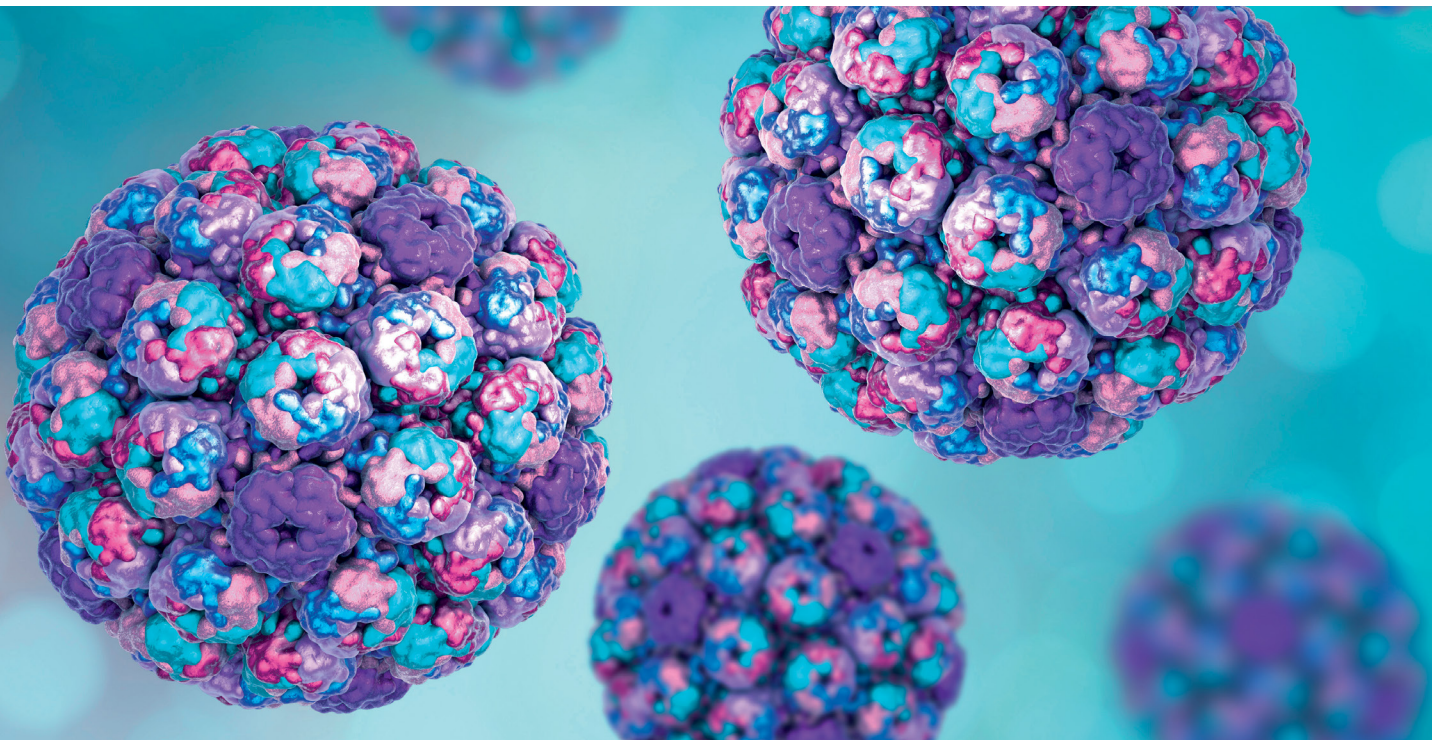


ELISA-VIDITEST POLYOMAVIRUS JC



VIDIA immunoenzymatic kits

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

**...the way to
the correct
results**



**IgG
ANTIBODY
RESPONSE**

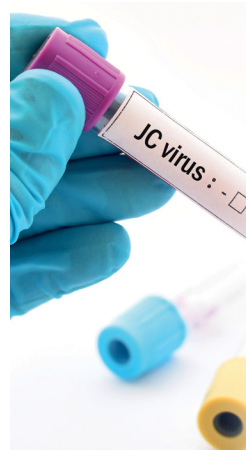
evidence for underwent
infection and reactivation

John Cunningham Virus (JCV)

JCV belongs to *Polyomaviridae* subgroup and is a small, non-enveloped DNA virus with double-stranded circular genome. The virus is arranged in 72 viral capsomeres with icosahedral symmetry. Infection with JCV occurs mostly in childhood and has mild symptoms. When reactivated or acquired in the immunocompromised host, JC virus have been implicated in a number of human clinical disease states. Serological testing of JCV is based on detection of specific JCV immunoglobulin IgG antibodies. PML is the result of JCV reactivation from places of latency in impaired cellular immunity.

Benefits of the kits

- Semiquantitative and quantitative evaluation of IgG antibodies
- Recombinant antigens do not cross-react with the other polyomaviruses (Polyoma BK, Polyomavirus Merkel cell carcinoma).



ELISA-VIDITEST

**The kits come from
our own research,
development and
production.**

We are VIDIA spol. s r. o. is a Czech biotechnological company with a wide range of kits for diagnostic examinations. Our products are developed with high quality.



Co-funded by
the European Union

ELISA-VIDITEST POLYOMAVIRUS JC

ELISA-VIDITEST kits are intended for laboratory diagnostics of diseases caused by or associated with JCV. From 50-60 % of population is infected by JCV during childhood. Infection is without any symptoms and later continues to the latent phase, which is characterised by long-term persistence of anamnestic IgG antibodies in serum. Virus can repeatedly reactivate in latently infected people or the reinfection by other serotype can occur. **Reactivation/reinfection can be accompanied by temporary viremia or asymptomatic excretion in urine, in rare cases of immunocompromised patients it can cause infection of CNS, e.g. Progressive Multifocal Leukonencephalitis (PML).** PML can occur during chronic immunosuppression, after organ transplantation and often has a poor prognosis. Very rarely, JCV can also be observed

in haemorrhagic cystitis, mainly associated with BKV. JCV DNA can be detected in tonsils, kidneys and lymphocytes in immunocompetent healthy individuals. In the brain of immunocompromised individuals, JCV can infect oligodendrocytes, astrocytes, cortical neurons, and cerebellar granule cell neurons.

The seropositivity of anti-JCV antibodies is one of the risk factors of PML outbreak in patients with multiple sclerosis or Crohn's disease who are treated with antibody-based regimens (natalizumab, efalizumab, rituximab). Significant increase or high anti-JCV antibody level can indicate reinfection or reactivation in these patients.

Monitoring the anti-JCV antibody index contributes to the early diagnosis of PML even in patients without a neurological anamnesis.

Test principle and procedure in steps



1. step

- Preparation of reagents and samples

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 60 minutes at RT
- 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 60 minutes at RT
- Suction and washing of the wells 4×250 µl with the washing solution

4. step

- Pipetting of 100 µl of chromogensubstrate solution TMB
- Reaction of enzyme and substrate occurs
- Incubation for 10 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

Benefits of the measurement

- Diagnostics of diseases associated with JCV
- Monitoring of PML risk in patients with immunomodulatory therapy
- Semiquantitative and quantitative evaluation of IgG
- Monitoring of IgG antibody concentration
- Sample: human serum and plasma
- Compatible with other ELISA-VIDITEST - interchangeable VIDIA buffers
- Ready to use HRP conjugate and controls
- CE-IVD marked available for *in vitro* diagnostic

VIDIA kits



CE IVD

REF	Product	Evaluation	Incubation	Sample	Number of tests
ODZ-450	ELISA-VIDITEST anti-JCV IgG	semiquant., quant.	60' / 60' / 10'	serum, plasma	96



Distribuito in ITALIA da
Li StarFish S.r.l.
Via Cavour, 35
20063 Cernusco S/N (MI)
telefono 02-92150794
info@listarfish.it
www.listarfish.it

