Epstein-Barr Virus

MIKROGEN DIAGNOSTIK

New Antigens
ZEBRA, BZLF1

Automated Strip Interpretation recomScan

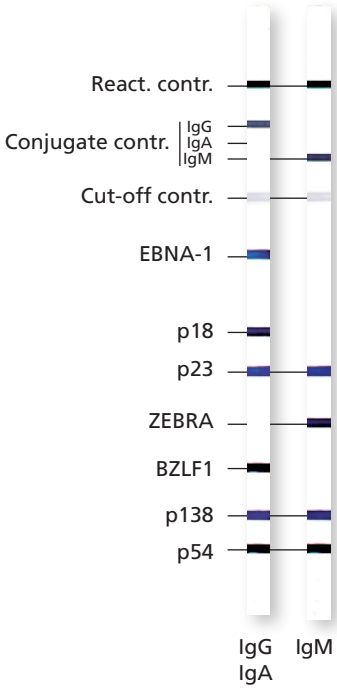
*recom*Line EBV IgG [Avidity] [IgA]
*recom*Line EBV IgM

Strip-Immunoassay with antigens produced by recombinant techniques for the detection of IgG, IgA and IgM antibodies against the Epstein-Barr virus (EBV)

The Epstein-Barr virus, an ubiquitously occurring herpes virus, can cause the symptoms of infectious mononucleosis (Pfeiffer´s disease) on primary infection. Moreover, as a result of the lifelong persistence of this pathogen, reactivations can occur, especially in immuno-incompetent persons.

Due to the diversity of symptoms caused by primary infection or reactivation and their correspondence with the symptoms of other diseases, one of the main tasks in routine diagnosis is the serological detection of a primary infection, past infection or possible reactivation. For this purpose, a series of individual determinations (EIA and IFT) are generally carried out for the particular class of antigen and type of antibody.

The *recom*Line EBV, with the antigens sprayed onto the nitrocellulose, is designed as screening immunoassay. The line-assay technique allows the detection and identification of IgG and IgM antibodies directed against the different EBV antigen classes in a single approach. The application of highly specific and characteristic EBV proteins is made possible by the use of antigens produced by genetic engineering.



„The combination of p18 and EBNA-1 (in IgG detection) represents a so far unrivalled degree of certainty in the exclusion of primary infections ...“

Prof. Dr. G. Bauer, Freiburg ‘99

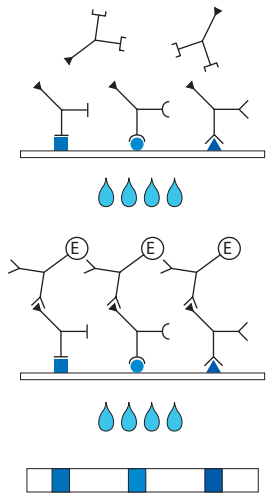
Product Advantages

- Recombinant antigens
  - High sensitivity and specificity
  - Easy and clear interpretation due to easy to read bands
  - No interference with anticellular antibodies
  - **Patent protected p18^{Mikrogen} as additional IgG marker for past infections**
  - **New antigens: Maximum sensitivity by BZLF1 in IgG and ZEBRA in IgM detection**
  - **Easy and reliable determination of avidity - patent protected**
- Safe evaluation due to strip specific controls (cut-off and conjugate control)
- Easy test procedure; automation possible
- Easy and objective evaluation and documentation by *recom*Scan software
- Test procedure and reagents identical in all MIKROGEN strip tests - reagents exchangeable
- CE label: The *recom*Line EBV tests meet the high standard of the EC directive 98/79/EC on in vitro diagnostic medical devices
- **More than 95 % of the past EBV infections are correctly identified with the recomLine EBV IgG strip only**

Recombinant EBV Antigens used in the Test

EBV Antigen Groups	Abbreviation	Recombinant Antigen	Size of rec. Antigens
Nuclear Antigen	EBNA-1	p72	45 kDal
Virus capsid/structural antigens	VCA	p23 p18	23 kDal 18 kDal
„Immediate Early Antigen“	IEA	ZEBRA (Peptid) BZLF1	1,6 kDal 30 kDal
„Early antigens“	EA	p54 p138	54 kDal 40 kDal

Test Principle and Procedure



1st Incubation — A test strip loaded with EBV antigens is incubated with diluted serum or plasma in a dish for **1 hour**.

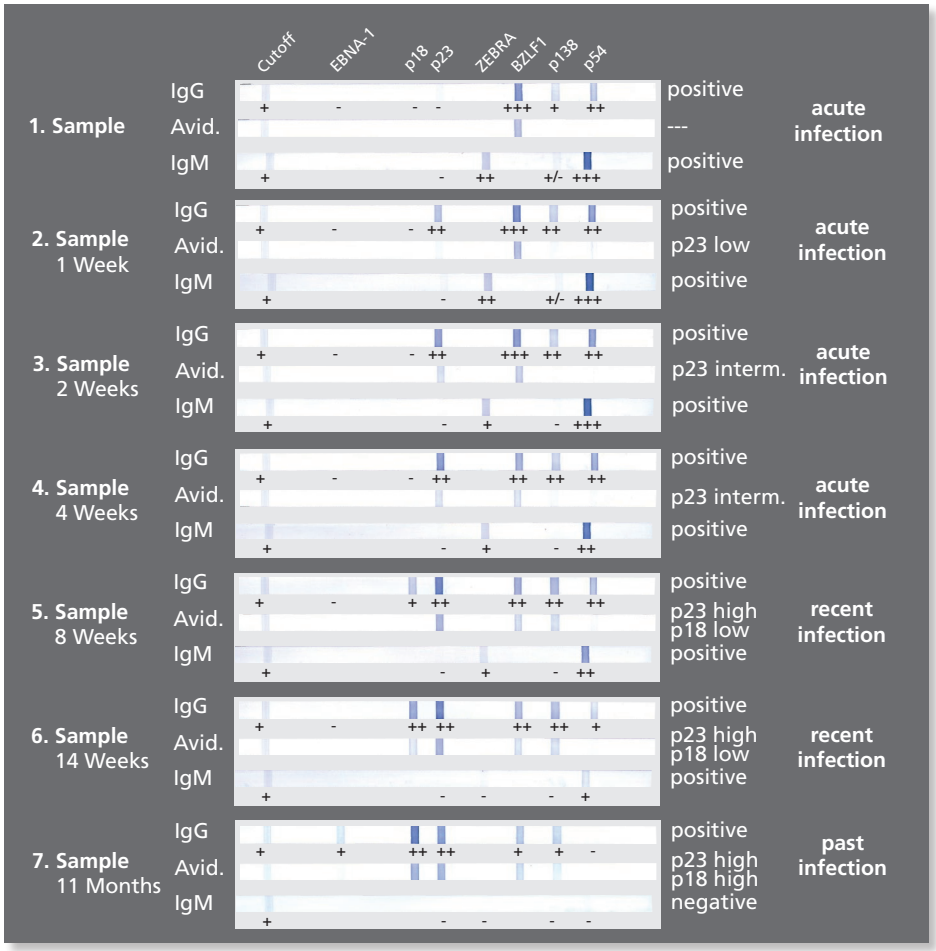
wash 3 times

2nd Incubation — Peroxidase conjugated anti-human antibodies (IgG, IgA or IgM specific) are added. Incubate for **45 minutes**.

wash 3 times

Color reaction — **8 minutes** after addition of the coloring solution, insoluble colored bands develop at the sites on the test strips occupied by antibodies.

Typical course of an EBV infection



- BZLF1 IgG and ZEBRA IgM appear as early markers beside the EA antigens (IgG and IgM)
- p18 IgG appears as late marker in the 8th week (sample 5)
- Avidity of p23 IgG rises during approx. 7 weeks (sample 2-5)
- EBNA-1 IgG appears as late marker after 11 months (sample 7)

Article-No

4572	***recom*Line EBV IgG [Avidity]* [IgA]*** Reagents for 20 determinations
4573	***recom*Line EBV IgM** Reagents for 20 determinations
4576	***recom*Line EBV IgG [Avidity]* [IgA]*** Reagents for 200 determinations
4577	***recom*Line EBV IgM** Reagents for 200 determinations
10016	**Line - anti-human-conjugate IgA**, 500 µl
11010	**Blot, Line - avidity reagent** Reagent for 25 avidity determinations

Storage

+2°C - +8°C

*[] optional available as additional reagent

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