Monoclonal Mouse Anti-Epstein-Barr Virus, BZLF1 Protein, ZEBRA
Clone BZ.1
Code No. M 7005
Lot 095. Edition 10.01.03

Intended use
For in vitro diagnostic use.

This antibody is intended for laboratory use to identify qualitatively, by light microscopy, Epstein-Barr virus (BZLF1 Protein/Bam HI Z fragment, Epstein-Barr-Replication Activator (ZEBRA)), using immunocytochemical test methods. Interpretation must be made within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Presentation
Monoclonal mouse antibody supplied in liquid form as tissue culture supernatant (RPMI 1640 medium containing fetal calf serum) dialysed against 0.05 mol/L Tris/HCl, pH 7.2 containing 15 mmol/L NaN3.
Mouse Ig concentration: 10 mg/L.
Isotype: IgG1, kappa.
Total protein concentration: 19.4 g/L.

Storage
2-8 °C.

Clone
BZ.1.

Immunogen
Recombinant fusion protein containing sequences of Protein A and the BZLF1 gene product (1).

Specificity/reactivity
The DAKO antibody reacts with the "immediate-early" transcriptional activator encoded by the BZLF1 gene of Epstein-Barr Virus (EBV) (1). The gene product exists in two forms with molecular mass of 39 kDa and 42 kDa, respectively. This transcriptional activator has been designated ZEBRA(2).

ZEBRA mediates a genetic switch between the latent and lytic (productive) states of EBV infection by binding, as a dimer, to the promoters of genes involved in lytic DNA replication and activating their transcription (2, 3). The epitope recognized by the antibody is generated by dimerization of the ZEBRA protein (1).

The antibody recognizes EBV-infected cells in which the virus is replicating, or cells in the process of switching from EBV latency to EBV production. The antibody labels all EBV-harboring cells that are producing or beginning to produce virus particles. The antibody is reactive with the ZEBRA protein in tissue sections, immunoblotting and immunoprecipitation assays (1).

Staining procedures
Formalin-fixed and paraffin-embedded sections
Can be used on formalin-fixed, paraffin-embedded tissue sections. To improve the staining pattern, methods for antigen retrieval, such as boiling in 10 mmol/L citrate buffer, pH 6.0, can be used. Treatment of tissue sections in DAKO Target Retrieval Solution, code No. S 1700, also improves the immunostaining. The slides should not dry out during this treatment or during the following immunocytochemical staining procedure.

For tissue sections, a variety of sensitive staining techniques are suitable, including immunoperoxidase procedures, the alkaline phosphatase anti-alkaline phosphatase (APAAP) technique and avidin-biotin methods such as the streptABComplex/HRP Duet Kit, code No. K 0492.

The antibody gives an optimal staining at a dilution of 1:20-1:40 when tested on paraffin-embedded sections of EBV-positive, AIDS-related non-Hodgkin's lymphoma.

Frozen sections and cell smears
Can be used for labelling acetone-fixed frozen sections, cell smears or imprints.

For tissue sections a variety of techniques are suitable, including immunoperoxidase procedures, the APAAP technique and avidin-biotin methods.

The antibody may be used at a dilution of 1:20-1:40 in the APAAP technique when tested on acetone-fixed cryostat sections and on fixed cell smears.

These are guidelines only; optimal dilutions should be determined by the individual laboratory.

References