

RISH™ Epstein-Barr Encoded RNA (EBER) Probe

Hybridization Probe

Control Number: 903-BRA0001-090914

Catalog Number: BRA0001T**Description:** Approximately 20 tests at
20 microliters per test**Dilution:** Ready-to-use**Diluent:** N/A**Intended Use:**

Analyte Specific Reagent. Analytical and performance characteristics are not established.

Summary & Explanation:

The Epstein – Barr virus is a member of the gamma-herpes viruses (HHV-4). It is a linear 184,000 base pair double stranded DNA virus. It was the first oncogenic virus to be discovered (1). Infection by this virus can show signs of a slight viral infection or it can be present as Infectious Mononucleosis. The most common target cells for the Epstein-Barr virus are the B lymphocytes and the nasopharyngeal epithelial cells. The Epstein-Barr virus massively infects the human population and sero-epidemiological studies show that 90% of adults have been infected by this virus (2). Latently infected B lymphocytes express abundantly (104-105 copies), among other genes, a short non-polyadenylated chain of RNA that does not transduce to a protein, consisting of two fragments known as EBER 1 and EBER 2. The expression of EBER (Epstein-Barr virus encoded RNAs) is nuclear. Although the function of EBER is unknown, it is believed that it may play a role in virus-produced oncogenesis (3). There are numerous human tumors associated with EBV. These range from non-differentiated nasopharyngeal carcinoma to African Burkitt's lymphoma, Hodgkin's disease mixed cellularity, some B, T and NK lymphomas, as well as in lymphoproliferative processes associated with immunodeficiency (4). The *in situ* hybridization technique offers an important advantage over immunohistochemistry, as it virtually lacks background, and allows a clean and sharp viewing of the histological preparation.

Clone: N/A**Isotype:** N/A**Known Applications:**

in situ hybridization (formalin-fixed paraffin-embedded tissues).

Supplied As:

RTU digoxigenin labeled DNA probe in hybridization buffer with nucleic acid carriers

Storage and Stability:

Store probe at 2°C to 8°C. Do not use after expiration date printed on vials. Avoid exposure to direct sunlight. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user.

Analyte Specific Reagent Note:

The RISH™ Epstein-Barr Encoded RNA Probe has been quality controlled by Biocare's RISH™ Detection Kit (RI0207KG). However, it is the responsibility of the laboratory or end-user to develop their own protocol and label appropriate disclaimer.

References:

1. Epstein M, *et al.* Morphological and biological studies on a virus in cultured lymphoblast from Burkitt's lymphoma. J Exp Med. 1965 May 1;121:761-70.
2. Henle G, *et al.* Antibodies to Epstein-Barr virus in Burkitt's lymphoma and control groups. J Natl Cancer Inst. 1969 Nov; 43 (5):1147-57.
3. Komano J, *et al.* Oncogenic role of Epstein-Barr virus encoded RNAs in Burkitt's lymphoma cell line Akata. J Virol. 1999 Dec; 73 (12):9827-31.
4. Jaffe ES, *et al.* Burkitt's lymphoma: a single disease with multiple variants. The World Health Organization classification of neoplastic diseases of the hematopoietic and lymphoid tissues. Blood. 1999 Feb 1; 93(3):1124.
5. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
6. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.

