



## RISH™ Epstein-Barr Encoded RNA (EBER) Probe

Hybridization Probe

Control Number: 903-RI0001-081110

ISO  
9001:2000  
CERTIFIED

**Catalog Number:** RI0001T

**Description:** Approximately 20 tests

**Dilution:** Ready-to-use

**Diluent:** N/A

**Intended Use:**

Analyte Specific Reagent. Analytical and performance characteristics have not been established.

**Summary & Explanation:**

The EBER digoxigenin labeled probe is intended for the detection of EBER RNA in cells infected by the Epstein-Barr virus, both in reactive and tumoral cells. This detection is carried out by *in situ* hybridization in formalin-fixed paraffin –embedded (FFPE) histological sections.

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).

**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. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

**Analyte Specific Reagent Note:**

The RISH™ Epstein-Barr encoded RNA EBER 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.

**Limitations and Warranty:**

There are no warranties, expressed or implied, which extend beyond this description. Biocare is not liable for property damage, personal injury, or economic loss caused by this product.

**References:**

1. Epstein M, Achong B, Barr Y. Morphological and biological studies on a virus in cultured lymphoblast from Burkitt's lymphoma. J.Exp. Med. 1965; 121:761-770.
2. Henle G, Henle W, Clifford P, et al. Antibodies to EB virus in Burkitt's lymphoma and control groups J. Nat. Cancer Inst. 1969; 43: 1147-1157.
3. Komano, J S. Maru, K. Kurozumi, t. Oda, K. Takada. Oncogenic role of Epstein-Barr virus encoded RNAs in Burkitt's lymphoma cell line Akata. J. Virol 1999 73:9827-31.
4. Jaffe ES, Diebold J, Harris NL, Muller-Hermelink HK, Flandrin G, Vardiman JW. 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. National Committee for Clinical Laboratory Standards (NCCLS). Protection of laboratory workers from infectious diseases transmitted by blood and tissue; proposed guideline. Villanova, PA 1991; 7(9).