SANTA CRUZ BIOTECHNOLOGY, INC.

E2-probe (5E11): sc-58351



BACKGROUND

Bovine Papillomavirus are small non-enveloped viruses with an icosahedral shape and a circular double-stranded DNA genome. The early region of the Bovine Papillomavirus genome encodes nonstructural proteins E1 to E8, while the late region encodes for the structural proteins L1 and L2. The E2 protein is the master regulator of the papillomavirus transcription and replication, the activity of which is regulated through sequence-specific DNA binding. There are six types of Bovine Papillomavirus that each infect a different human area. The six types are divided into two broad subgroups, A and B. Subgroup B viruses cause warts upon infection that have a cauliflower-like appearance and are most common on the head, neck and shoulders in humans. Subgroup A viruses cause cutaneous fibropapillomas that have a nodular appearance.

REFERENCES

- Boiron, M., Levy, J.P., Thomas, M., Friedmann, J.C. and Bernard, J. 1964. Some properties of bovine papilloma virus. Nature 201: 423-424.
- Cheville, N.F. 1966. Studies on connective tissue tumors in the hampster produced by bovine papilloma virus. Cancer Res. 26: 2334-2339.
- Robl, M.G., Gordon, D.E., Lee, K.P. and Olson, C. 1973. Intracranial fibroblastic neoplasms in the hampster from bovine papilloma virus. Cancer Res. 32: 2221-2225.
- Breiding, D.E., Grossel, M.J. and Androphy, E.J. 1996. Genetic analysis of the bovine papillomavirus E2 transcriptional activation domain. Virology 221: 34-43.
- Yao, J.M., Breiding, D.E. and Androphy, E.J. 1998. Functional interaction of the bovine papillomavirus E2 transactivation domain with TFIIB. J. Virol. 72: 1013-1019.
- Kaldalu, N., Lepik, D., Kristjuhan, A. and Ustav, M. 2000. Monitoring and purification of proteins using bovine papillomavirus E2 epitope tags. Biotechniques 28: 456-460, 462.
- Kurg, R., Langel, U. and Ustav, M. 2000. Inhibition of the bovine papillomavirus E2 protein activity by peptide nucleic acid. Virus Res. 66: 39-50.
- Kurg, R., Sild, K., Ilves, A., Sepp, M. and Ustav, M. 2005. Association of bovine papillomavirus E2 protein with nuclear structures *in vivo*. J. Virol. 79: 10528-10539.
- Lentz, M.R., Stevens, S.M., Raynes, J. and Elkhoury, N. 2006. A phosphorylation map of the bovine papillomavirus E1 helicase. Virol. J. 3: 13.

SOURCE

E2-probe (5E11) is a mouse monoclonal antibody raised against amino acids 197-208 of E2 regulatory protein of bovine papillomavirus representing the E2 tag.

PRODUCT

Each vial contains 100 μ g lgG₁ in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 5% glycerol.

APPLICATIONS

E2-probe (5E11) is recommended for detection of E2 tag by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.