



## BPV E2 (3H5): sc-57646

### BACKGROUND

Bovine papillomavirus (BPV) are small non-enveloped viruses with an icosahedral shape and a circular double-stranded DNA genome. The early region of the BPV 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 BPV 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

1. Boiron, M., Levy, J.P., Thomas, M., Friedmann, J.C. and Bernard, J. 1964. Some properties of bovine papillomavirus. *Nature* 201: 423-424.
2. Cheville, N.F. 1967. Studies on connective tissue tumors in the hamster produced by bovine papillomavirus. *Cancer Res.* 26: 2334-2339.
3. Robl, M.G., Gordon, D.E., Lee, K.P. and Olson, C. 1973. Intracranial fibroblastic neoplasms in the hamster from bovine papillomavirus. *Cancer Res.* 32: 2221-2225.
4. Breiding, D.E., Gossel, M.J. and Androphy, E.J. 1996. Genetic analysis of the bovine papillomavirus E2 transcriptional activation domain. *Virology* 221: 34-43.
5. Yao, J.M., Breiding, D.E. and Androphy, E.J. 1998. Functional interaction of the bovine papillomavirus E2 transactivation domain with TFIIIB. *J. Virol.* 72: 1013-1019.
6. 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.
7. 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.
8. 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.
9. 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

BPV E2 (3H5) is a mouse monoclonal antibody raised against full-length recombinant E2 protein of bovine papillomavirus origin.

### PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 5% glycerol.

### RESEARCH USE

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

### APPLICATIONS

BPV E2 (3H5) is recommended for detection of amino acids 310-410 of BPV E2 protein of bovine papillomavirus type 1 origin by immunoprecipitation [1-2 µg per 100-500 µg 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, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.