HPV Cocktail Broad Spectrum

Format	Catalogno.	Pack size	Dilution
Concentrated	GB-c177CK	1.0 mL	1 : 100
Prediluted	GB-p177AA	6.0mL	Ready to use

PRODUCT DESCRIPTION -

The product of the L1 open reading frame (ORF) of BPV-1 was identified using the broad spectrum HPV antibody that was developed (1H8) against SDS-disrupted bovine papillomavirus type 1 (BPV-1). Researchers discovered that pure main capsid protein (MCP) reacted with IH8. Immunofluorescent and enzyme-linked immunosorbent assay testing revealed that the antibody identified 6, 11, 16, 18, and 31 HPV types in formalin-fixed paraffin embedded biopsy samples. Using a recombinant vaccinia virus that produces the L1 protein as a screening target, the CAMVIR-1 antibody was produced against the main capsid protein L1 of human papillomavirus type 16. There was a 56 kilodalton protein in HPV16 that this antibody interacted with in L1-vaccinia virus infected cells. Additional testing can be conducted using a p16 and Ki-67 panel. For HPV-16 phenotyping, CAMVIR-1 can be utilized independently as well.

INTENDED USE - For Research Purposes Only. Not intended for diagnostic procedures.

SUMMARY AND EXPLANATION -

The HPV Cocktail Broad Spectrum antibody comprises two monoclonal antibody clones (BPV-1/1H8 + CAMVIR-1) that specifically target the major capsid protein (L1) of various human papillomavirus (HPV) subtypes. The BPV-1/1H8 antibody was developed against disrupted bovine papillomavirus type 1 (BPV-1) and utilized to detect the product of the L1 open reading frame (ORF) of BPV-1. BPV-1/1H8 was evaluated using ELISA, as well as immunohistochemical and immunofluorescent methods, demonstrating its ability to identify HPV-1, 6, 11, 16, 18, and 31 in formalin-fixed paraffin-embedded (FFPE) biopsy samples. The CAMVIR-1 antibody was developed against the L1 protein of HPV subtype 16. Additional HPV subtypes may exhibit reactivity with the HPV Cocktail Broad Spectrum antibody, however they have not been evaluated.

PRINCIPLE OF PROCEDURE -

Antigen identification in tissues and cells is a multi-phase immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope.

Following the tagging of the antigen with a primary antibody, a one-, two-, or three-step detection protocol may be utilized. The one-step approach will utilize an enzyme-conjugated polymer that attaches to the main antibody. A two-step approach will involve the addition of a secondary antibody to bind to the primary antibody. An enzyme-conjugated polymer is subsequently introduced to interact with the secondary antibody. The three-step detection protocol will include the addition of a secondary antibody to bind to the main antibody, succeeded by a linker antibody step to enhance binding efficacy. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. These detections of the bound antibodies are evidenced by a colorimetric reaction.

SOURCE - Mouse monoclonal antibody

SPECIES REACTIVITY - Human; others not tested

CLONE - BPV-1/1H8 and CAMVIR-1

ISOTYPE - IgG and IgG2a

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - HPV Cocktail Broad Spectrum (HPV-1, 6, 11, 16, 18 and 31)

CELLULAR LOCALISATION - Nuclear

POSITIVE TISSUE CONTROL - Infected cervical biopsy

KNOWN APPLICATIONS - Immunohistochemistry 30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95ºC followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with a protein carrier and preservative HPV Diluent (PD906)

STORAGE AND STABILITY -

Store at 2ºC to 8ºC. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Materials required but not provided -

1) Positive tissue control - Infected cervical biopsy
2) Negativecontroltissue(internalorexternal)

3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.