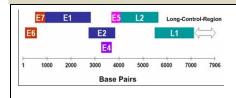


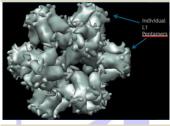
## Human Papilloma Virus Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies

Human papillomavirus (HPV) is a virus from the papillomavirus family of viruses that is capable of infecting humans. Like all papillomaviruses, HPVs establish productive infections only in keratinocytes of the skin or mucous membranes. While the majority of the nearly 200 known types of HPV cause no symptoms in most people, some types can cause warts (verrucae), while others can lead to cancers of the cervix, vulva, vagina, and anus in women or cancers of the anus and penis in men. HPV infection is a cause of nearly all cases of cervical cancer. Over 120 HPV types have been identified and are referred to by number. Types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59 are "high-risk" sexually transmitted HPVs. Two vaccines are available to prevent infection by some HPV types: **Gardasil**, marketed by Merck, and **Cervarix**, marketed by GlaxoSmithKline. Both vaccines utilize recombinant L1 proteins and protect against initial infection with HPV types 16 and 18, which cause most of the HPV associated cancer cases. Gardasil also protects against HPV types 6 and 11, which cause 90% of genital warts.









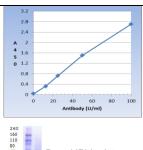
Gardasil is also effective in males, providing protection against genital warts, anal cancer, and some potentially precancerous lesions caused by some HPV types. An ongoing study of males demonstrated the efficacy of Gardasil in males who did not have HPV infection prior to vaccination. The vaccination is expected to protect against penile cancer and anal cancer caused by included HPV types, and research in this area is ongoing. The HPV genome (dsDNA of ~8000 base pairs) is composed of six early (E1, E2, E3, E4, E6, and E7) and two late (L1 and L2) proteins. After the host cell is infected E1 and E2 are expressed first. In the upper layers of the host epithelium, the late genes L1 and L2 are transcribed/translated and serve as structural proteins that encapsidate the amplified viral genomes. The papillomavirus capsid also contains a viral protein known as L2, which is less abundant. L2 is of interest as a possible target for more broadly protective HPV vaccines. HPV06 L1 (protein accession #CAU03682.1, 501-aa), HPV11 L1 (protein accession #CCB84764,

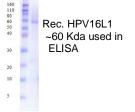
503-aa)) HPV16 L1 (protein accession #ACA14209; 531aa/505-aa), HPV18 L1 (protein accession #AAP20601; 568-aa/427-aa).

Gardasil contains recombinant VLPs assembled from the L1 proteins of HPV types 6, 11, 16 and 18. Since VLPs lack the viral DNA, they cannot induce cancer. They do, however, trigger an antibody response that protects vaccine recipients from becoming infected with the HPV types represented in the vaccine. The L1 proteins are produced by separate fermentations in recombinant S. cerevisiae and self-assembled into VLPs.

ADI has cloned, expressed, and purified HPV L1s from HPV6, HPV11, HPV16, and HPV18 viruses. Specific antibody ELISA kits have been developed to test the efficacy of existing (Gardasil/Cervarix) or new HPV vaccines. ADI is further expanding the antibody ELISAs to measure IgG (and IgG1, IgG2a, IgG3, IgG4) and IgM classes.

## Human papilloma virus vaccine Related ELISA kits





# HPV Vaccine Anti-HPV16L1 IgG ELISA General Design

- Highly purified recombinant HPVL1s protein (HPV6/11/16/18) coated plates; Stability ~6-12 months
- Anti-HPVL1 IgG (HPV6, 11, 16, 18L1) controls at 100 u/ml allows quantitative antibody assay
- Samples 100 ul (1:100 or more) 3 incubations at room temp (60+30+15 min) or 105 min assay.
- Kit has all necessary ready-to-use reagents for 96 tests; Shelf Life ~6-12 months.

#### All ELISA kits follow the same basic design, General assay procedure etc.

- Step 1. Pipet 100 ul each of pre-diluted quantitative positive standards (6.25-100 u/ml), and samples (1:100 or higher).
- Step 2. Mix gently for 5-10 seconds and incubate for 60 min at room temp.
- Step 3. Wash 3X using supplied wash buffer. Add 100 ul of Antibody-HRP Conjugate to all wells, mix by gentle mixing for 5-10 seconds and incubate at room temperature for 30 min.
- Step 4. Wash 4X using supplied wash buffer. Add 100 ul of Substrate solution to all wells, mix gently, and incubate at room temperature for 15 min. Blue color develops in standards and positive samples.
- Step 5. Pipet 100 ul of stop solution into all tubes, mix gently (blue color turns yellow). Measure OD at A450 nm. Positive samples can be observed visually and the antibody concn calculated from the standard curve.

# **Available ELISA Kits**

ELISA Kit Description	Human	Mouse	Rabbit
HPV Vaccine (Gardasil/Cervarix) HPV6L1 Antibody (IgG) ELISAs	550-106-PHG	550-306-PMG	550-206-PRG
HPV Vaccine (Gardasil/Cervarix) HPV11L1 antibody (IgG) ELISA kit	550-111-PHG	550-311-PMG	550-211-PRG
HPV Vaccine (Gardasil/Cervarix) HPV16L1 antibody ELISA kit	550-116-PHG	550-316-PMG	550-216-PRG
HPV Vaccine (Gardasil/Cervarix) HPV18L1 antibody ELISA kit	550-118-PHG	550-318-PMG 📆	550-218-PRG





# Human Papilloma Virus Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies

International Anti-Human Papilloma Virus 11 (HPV11) late protein L1 (HPV11L1)   Antibodies [G., aff pure #1]   Antibodies [G., aff pure #1]   Antibodies antiserum   HPV11L12-S   Rabbit Anti-Human Papilloma Virus 11 late protein L1 (HPV11L1, full length)   Antibodies antiserum   HPV11L15-R-10   Recombinant (E.coli) Human Papilloma Virus 11 late protein L1 (HPV11L1), full ength, His-lag   HPV16E21-M   Monoclonal Anti-Human Papilloma Virus 16 early protein E2 (HPV16E2) [gG, aff pure #1   HPV16E61-M   Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E6 (HPV16E6)   Antibodies   G., aff pure #1   HPV16E71-M   Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7)   Antibodies   G., aff pure #1   HPV16L12-S   Rabbit Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7)   Antibodies   A	Catalog#	Catalog#	Product Description	Product Type
HPV06L12-S Rabbit Anti-Human Papilloma Virus 6 late protein L1 (HPV6L1, full length) Antibodies antiserum HPV11L11-M HPV11L11-M Monoclonal Anti-Human Papilloma Virus 11 (HPV11) late protein L1 (HPV1L1, full length) IgG. aff pure #1 HPV11L12-S Rabbit Anti-Human Papilloma Virus 11 late protein L1 (HPV11L1, full length) Antibodies antiserum HPV11L15-R-10 Recombinant (E.coli) Human Papilloma Virus 11 late protein L1 (HPV11L1, full length) Antibodies antiserum HPV11L15-R-10 Recombinant (E.coli) Human Papilloma Virus 11 late protein L1 (HPV11L1, full length) Antibodies antiserum HPV16E21-M Monoclonal Anti-Human Papilloma Virus 16 early protein E2 (HPV16E2) IgG, aff pure #1 HPV16E61-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E6 (HPV16E6) IgG, aff pure #1 HPV16L12-S Rabbit Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) IgG, aff pure #1 HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) IgG, aff pure #1 HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1) IgG, aff pure #1 HPV16L11-C Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 (HPV16L1) IgG, aff pure #1 HPV16L11-C Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 (HPV16, E2+E6+E7 epitopes used to GST protein HPV16.15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein (HPV16, E2+E6+E7 epitopes used to GST protein HPV18L13-S Rebbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies HPV18L13-S Rebbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies HPV18L13-S Rebbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies HPV18L13-S Rebbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies HPV18L13-S Rebbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies HPV18L13-R Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies HPV18L13-R Recombinant (		HPV06E71-M	Monoclonal Anti-Human Papilloma Virus 6 early protein 7 (E7) (HPV6E7) IgG,	Antibodies
### Artibodies ### Artibodies ### Artibodies ### HPV16   ### Artibodies ### HPV16   ### Artibodies ### HPV11   ### Artibodies ### Artibodies ### HPV11   ### Artibodies ### HPV11   ### Artibodies ### HPV11   ### Artibodies ### HPV11   ### Artibodies ### Artibodies ### HPV11   ### Artibodies ### HPV11   ### Artibodies ### HPV16   ### Artibodies ### HPV16   ### Artibodies ### HPV16   ### Artibodies ### Artibodies ### HPV16   ### Artibodies #### Artibodies ##### Artibodies ##### Artibodies ##### Artibodies ####################################		HPV06L11-M	Monoclonal Anti-Human Papilloma Virus 6 late protein L1 (HPV6L1) lgG	Antibodies
International Content	HPV06	HPV06L12-S	antiserum	Antibodies
HPV11L12-S. Rabbit Anti-human Papilloma Virus 11 late protein L1 (HPV11L1, full length) antibodies antiserum HPV11L15-R-10 Recombinant (E.coli) Human Papilloma Virus 11 late protein L1 (HPV11L1), full protein L1 (HPV16E2) lgG, aff pure #1 HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) lgG, aff pure #1 HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1) antibodies antiserum HPV16E11-C Recombinant purified Human Papilloma Virus 16 late protein L1 ((HPV16I1) full length) cantrol for WB HPV16E21-R-100 Recombinant (E.coli) Human Papilloma Virus 16 late protein (HPV16I, E2+E6+E7 protein HPV16L15-R-10) Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 (HPV16L1, his-tag), full length protein (HPV16L1, full length) cantrol for ELSA HPV18E71-M Monoclonal Anti-Human Papilloma Virus 18 early protein E6 (HPV18E6) lgG, aff pure #1 HPV18L11-M Monoclonal Anti-Human Papilloma Virus 18 late protein L1 ((HPV18L1), full length) protein wits antiserum (HPV18L1-S) Recombinant protein protein (HPV18L1-S) Recombinant protein (HPV18L1-S) Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full western C0 (HPV18L1-S-S-C0) Recombinant purified Human Papilloma Virus 18 late protein (HPV18L1, full length) cantrol for WB (HPV18L1-S-C0) Recombinant protein (HPV18L1-S-C0-Recombinant protein (HPV18L1-S-C0-Recombinant (		HPV06L15-R-10		Recombinant protein
antiserum HPV11L15-R-10 Recombinant (E.coli) Human Papilloma Virus 11 late protein L1 (HPV11L1), full protein protein length, His-tag  HPV16E21-M Monoclonal Anti-Human Papilloma Virus 16 early protein E2 (HPV16E2) IgG, aff pure #1  HPV16E61-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E6 (HPV16E6) IgG, aff pure #1  HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) Antibodies IgG, aff pure #1  HPV16L12-S Rabbit Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) Antibodies antiserum  HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1) Antibodies IgG, aff pure #1  HPV16L11-C Recombinant purified Human Papilloma Virus 16 late protein L1 ((HPV16L1) IgG, aff pure #1  HPV16E21-R-100 Recombinant (E.coli) Human Papilloma Virus 16 early protein (HPV16, E2+E6+E7 epitopes fused to GST protein  HPV16L15-R-10 Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 protein ((HPV16L1), inis-tag), full length) Control for WB Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 protein ((HPV16L1), inis-tag), full length Pure #1  HPV18L12-S Rabbit Anti-Human Papilloma Virus 18 early protein E6 (HPV18E6) IgG, aff pure #1  HPV18L11-C Recombinant Purified Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV18L11-C Recombinant Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV18L11-C Recombinant Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV8L11-C Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1), full length) cantiserum control for ELISA  HPV18L11-C Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length) control for WB  HPV8E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length) control for WB  HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length) control for WB  HPV8L5-C (NAC Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Glu-Glu-Glu-G		HPV11L11-M		Antibodies
HPV16E21-M HPV16E21-M Monoclonal Anti-Human Papilloma Virus 16 early protein E2 (HPV16E2) IgG, aff pure #1 HPV16E61-M IMPV16E61-M IMPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E6 (HPV16E6) [gG, aff pure #1 HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) [Antibodies pure #1 HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) [Antibodies pure #1 HPV16L12-S Rabbit Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) [Antibodies pure #1 HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) [Antibodies pure #1 HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) [Antibodies pure #1 HPV16E21-R-100 [Antibodies pure #1] [Antibodies pure	HPV11	HPV11L12-S	, , , , , , , , , , , , , , , , , , , ,	Antibodies
HPV16E61-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E6 (HPV16E6) Antibodies IgG, aff pure #1 HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) Antibodies IgG, aff pure #1 HPV16L12-S Rabbit Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) Antibodies antiserum HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1) Antibodies IgG, aff pure #1 HPV16L11-C Recombinant purified Human Papilloma Virus 16 late protein L1 (HPV16L1, full length) in the Ingth in Ingt		HPV11L15-R-10	Recombinant (E.coli) Human Papilloma Virus 11 late protein L1 (HPV11L1), full	Recombinant protein
HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7)   Antibodies   IgG, aff pure #1   Rabbit Anti-Human Papilloma Virus 16 late protein L1 (HPV16L1, full length)   Antibodies   IgG, aff pure #1   Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1)   Antibodies   IgG, aff pure #1   HPV16L11-M   Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1)   Antibodies   IgG, aff pure #1   HPV16L11-C   Recombinant purified Human Papilloma Virus 16 late protein L1 ((HPV16I1, full length)   Control for WB   HPV16E21-R-100   Recombinant (E.coli) Human Papilloma Virus 16 early protein (HPV16, E2+E6+E7 apitopes fused to GST protein   HPV16L15-R-10   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 protein ((HPV16L1, Recombinant protein his-tag), full length   Monoclonal Anti-Human Papilloma Virus 18 early protein E6 (HPV18E6) IgG, aff pure #1   HPV18E11-M   Monoclonal Anti-Human Papilloma Virus 18 early protein E7 (HPV18E7) IgG, aff pure #1   HPV18L12-S   Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length)   Antibodies antiserum   Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff   Antibodies pure #1   HPV18L13-S   Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA   HPV18L11-C   Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length)   HPV18L15-R-50   Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18, E2+E6+E7 epitopes fused to GST protein   HPV18L15-R-10   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18, E2+E6+E7 epitopes fused to GST protein   HPV18L15-R-10   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18, E2+E6+E7 epitopes fused to GST protein   HPV18L15-R-10   HPV-E7-V (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic   Epitide   HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-G	HPV16	HPV16E21-M	pure #1	Antibodies
HPV16E71-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) early protein E7 (HPV16E7) Antibodies IgG, aff pure #1 HPV16L12-S Rabbit Anti-Human Papilloma Virus 16 late protein L1 (HPV16L1, full length) antiserum HPV16L11-M Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1) Antibodies IgG, aff pure #1 HPV16L11-C Recombinant purified Human Papilloma Virus 16 late protein L1 ((HPV16I1, full length) control for WB HPV16E21-R-100 Recombinant (E.coli) Human Papilloma Virus 16 early protein (HPV16, E2+E6+E7 epitopes fused to GST protein HPV16L15-R-10 Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 protein ((HPV16L1, Recombinant his-tag), full length protein his-tag), full length antiserum HPV18E61-M Monoclonal Anti-Human Papilloma Virus 18 early protein E6 (HPV18E6) IgG, aff pure #1 HPV18E71-M Monoclonal Anti-Human Papilloma Virus 18 early protein E7 (HPV18E7) IgG, aff pure #1 HPV18L11-M Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) antiserum HPV18L11-M Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1 HPV618L13-S Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff proteins antiserum control for ELISA HPV18L11-C Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB HPV18L11-C Recombinant purified Human Papilloma Virus 18 late protein (HPV18, E2+E6+E7 epitopes fused to GST protein HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein (HPV18L1), full length) control for WB SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gin-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-gotein Glu-Gin-Leu-Asn-Asp) (MW: 2467.72) SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gl		HPV16E61-M		Antibodies
Antibodies  HPV16L11-M  Monoclonal Anti-Human Papilloma Virus 16 (HPV16) late protein L1 (HPV16L1)  Recombinant purified Human Papilloma Virus 16 late protein L1 ((HPV16I1, full length) control for WB  HPV16E21-R-100  Recombinant (E.coli) Human Papilloma Virus 16 early protein (HPV16, E2+E6+E7 epitopes fused to GST protein  HPV16L15-R-10  Recombinant (E.coli) Human Papilloma Virus 16 late protein L1 protein ((HPV16L1, Recombinant init) protein (HPV16L1, Full length) pure #1  HPV18L12-S  Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) antiserum (HPV18L11-M) Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) lgG, aff pure #1  HPV18L11-C  Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) protein (HPV18L1, full length)		HPV16E71-M	IgG, aff pure #1	Antibodies
HPV16L11-C   Recombinant purified Human Papilloma Virus 16 late protein L1 ((HPV16I1, full length) control for WB		HPV16L12-S	antiserum	Antibodies
HPV16E21-R-100   Recombinant (E.coli) Human Papilloma Virus 16 early protein (HPV16, E2+E6+E7 protein HPV16L15-R-10   Recombinant (E.coli) Human Papilloma Virus 16 late protein (HPV16, E2+E6+E7 protein his-tag), full length   HPV18E61-M   Monoclonal Anti-Human Papilloma Virus 18 early protein E6 (HPV18E6) IgG, aff pure #1   HPV18E71-M   Monoclonal Anti-Human Papilloma Virus 18 early protein E7 (HPV18E7) IgG, aff pure #1   HPV18L12-S   Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length)   Antibodies antiserum   HPV18L11-M   Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1   HPV618L13-S   Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus) HPV6+11+16+18 late proteins) antiserum control for ELISA   HPV18L11-C   Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length)   Western Blot length) control for WB   HPV18E25-R-50   Recombinant (E.coli) Human Papilloma Virus 18 late protein (HPV18; E2+E6+E7 Recombinant protein   HPV18L15-R-10   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant protein   HPV-E7-C (AA: Tyr-Met-Leu-Asp-Leu-Glu-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-geptide   HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Synthetic   Synthetic		HPV16L11-M	IgG, aff pure #1	Antibodies
PV18E11-C   Recombinant (E.coli) Human Papilloma Virus 18 early protein E6 (HPV18E6) IgG, aff protein HPV18E13-R-50   Recombinant (E.coli) Human Papilloma Virus 18 early protein E6 (HPV18E6) IgG, aff protein HPV18E25-R-50   Recombinant protein L1 (HPV18E1) IgG, aff protein HPV18E25-R-50   Recombinant protein L1 (HPV18E1) IgG, aff protein L1 (HPV18E1) IgG, aff protein HPV18E15-R-10   Recombinant Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff protein HPV18E15-R-10   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length)   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18E1, full length)   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1, full length)   Recombinant (E.coli) Human Papilloma Virus 18 late protein (HPV18; E2+E6+E7 epitopes fused to GST protein   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full SP-100307-1   HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-geptide   HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV16L11-C	length) control for WB	Western Control
his-tag), full length protein protein protein protein his-tag), full length protein his-tag), full length protein his-tag), full length pure #1  HPV18E71-M Monoclonal Anti-Human Papilloma Virus 18 early protein E7 (HPV18E7) IgG, aff pure #1  HPV18L12-S Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) Antibodies antiserum Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV18L11-M Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV618L13-S Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA  HPV18L11-C Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB  HPV18E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein  HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant length, His-tag  SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Glu-Glu-Leu-Asn-Asp) (MW: 2467.72)  SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV16E21-R-100	epitopes fused to GST protein	Recombinant protein
HPV18E71-M Monoclonal Anti-Human Papilloma Virus 18 early protein E7 (HPV18E7) IgG, aff pure #1  HPV18L12-S Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) antiserum  HPV18L11-M Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV618L13-S Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA  HPV18L11-C Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB  HPV18E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 Recombinant protein HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant length, His-tag  SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Glu-Glu-Asn-Asp) (MW: 2467.72)  SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV16L15-R-10		Recombinant protein
HPV18L12-S Rabbit Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) antiserum  HPV18L11-M Monoclonal Anti-Human Papilloma Virus 18 late protein L1 (HPV18L1) IgG, aff pure #1  HPV618L13-S Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA  HPV18L11-C Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB  HPV18E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein  HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full Recombinant length, His-tag  SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Gln-Leu-Asn-Asp) (MW: 2467.72)  SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV18E61-M	pure #1	Antibodies
Antibodies  HPV18L11-M  HPV618L13-S  Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA  HPV18L11-C  Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB  HPV18E25-R-50  Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein  HPV18L15-R-10  Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full protein  Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full protein  Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full protein  Recombinant length, His-tag  SP-100307-1  HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Gln-Leu-Asn-Asp) (MW: 2467.72)  SP-100308-1  HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV18E71-M	pure #1	Antibodies
HPV18    Antibodies   Pure #1   HPV618L13-S   Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA   HPV18L11-C   Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB   +ve Control HPV18E25-R-50   Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein   HPV18L15-R-10   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full   Recombinant (E.coli) Human Papilloma Virus 18 late protein (HPV18; E2+E6+E7   Potein (HPV1		HPV18L12-S		Antibodies
Proteins) antiserum control for ELISA  HPV18L11-C Recombinant purified Human Papilloma Virus 18 late protein L1 (HPV18L1, full length) control for WB  HPV18E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein  HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length, His-tag  SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Gln-Leu-Asn-Asp) (MW: 2467.72) SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV18L11-M	pure #1	Antibodies
HPV18E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein  HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length, His-tag  SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Gln-Leu-Asn-Asp) (MW: 2467.72)  SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic	HPV18	HPV618L13-S	Mouse Anti-Gardasil vaccine L1s (Human Papilloma Virus/HPV6+11+16+18 late proteins) antiserum control for ELISA	Antibodies
HPV18E25-R-50 Recombinant (E.coli) Human Papilloma Virus 18 early protein (HPV18; E2+E6+E7 epitopes fused to GST protein  HPV18L15-R-10 Recombinant (E.coli) Human Papilloma Virus 18 late protein L1 (HPV18L1), full length, His-tag  SP-100307-1 HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Gln-Leu-Asn-Asp) (MW: 2467.72) SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV18L11-C		Western Blot +ve Control
HPV18    SP-100307-1   HPV-E7-N (AA: Tyr-Met-Leu-Asp-Leu-Gln-Pro-Glu-Thr-Thr-Asp-Leu-Tyr-Cys-Tyr-Glu-Gln-Leu-Asn-Asp) (MW: 2467.72)   Spr.100308-1   HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic   Synthetic   Synthet		HPV18E25-R-50	epitopes fused to GST protein	Recombinant protein
Glu-Gln-Leu-Asn-Asp) (MW: 2467.72) peptide SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Synthetic		HPV18L15-R-10	length, His-tag	Recombinant protein
SP-100308-1 HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu- Synthetic		SP-100307-1	Glu-Gln-Leu-Asn-Asp) (MW: 2467.72)	
Fio-Asp-Aig-Aia) (WW. 2102.00)   peptide		SP-100308-1	HPV-E7-C (AA: Ser-Ser-Glu-Glu-Glu-Asp-Glu-Ile-Asp-Gly-Pro-Ala-Gly-Gln-Ala-Glu-Pro-Asp-Arg-Ala) (MW: 2102.08)	
SP-100309-1 HPV-E6-N (AA: Asp-Pro-Gln-Glu-Arg-Pro-Arg-Lys-Leu-Pro-Gln-Leu-Cys-Thr-Glu) Synthetic peptide		SP-100309-1	HPV-E6-N (AA: Asp-Pro-Gln-Glu-Arg-Pro-Arg-Lys-Leu-Pro-Gln-Leu-Cys-Thr-Glu)	Synthetic
SP-100310-1 HPV-E6-M (AA: Ser-Glu-Tyr-Pro-His-Tyr-Cys-Tyr-Ser-Leu-Tyr-Gly-Thr-Thr-Leu-Synthetic peptide		SP-100310-1	HPV-E6-M (AA: Ser-Glu-Tyr-Pro-His-Tyr-Cys-Tyr-Ser-Leu-Tyr-Gly-Thr-Thr-Leu-Glu-Gln-Gln-Tyr-Asn) (MW: 2459.64)	
SP-100311-1 HPV-E6-C (AÁ: Pro-Leu-Cys-Pro-Glu-Glu-Lys-Gln-Arg-His-Leu-Asp-Lys-Lys-Gln-Arg-Phe-His-Asn-Ile) (MW: 2516.92) Synthetic peptide		SP-100311-1	HPV-E6-C (AA: Pro-Leu-Cys-Pro-Glu-Glu-Lys-Gln-Arg-His-Leu-Asp-Lys-Lys-Gln-	Synthetic

Rev. 121212A

