



HPV Detection



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PRODUCTS FOR HPV Detection

A Novel Molecular Diagnostics for Women Health Care

- 1 HPV genotyping (16, 18) & screening (high-risk HPV types, HPV 6/11)
- 2 CT, NG, and HPVs (high- & low-risk HPV types)



Genotyping + screening

Human Papillomavirus Infection

▶ Super Multiplex PCR

- Simultaneous detection of multiple pathogens by just one-time PCR

▶ Seeplex® PCR with High Specificity and Sensitivity

▶ Low Cost and Fast Results

▶ Applicable for Automatic System

- Automatic sample preparation, detection and analysis
- Rapid and easy interpretation

● Cervical Cancer

- It's the 3rd leading cause of cancer death in women worldwide
- The primary cause of cervical cancer is infection with HPV, a very common virus that is sexually transmitted.

● Importance of HPV Typing

- HPV 16 and HPV 18 account for 70% of all cervical cancer and only 30 % are attributable to the other 13 carcinogenic HPV genotypes.
- HPV types 6 and 11 are most commonly associated with benign lesions, such as genital warts and mild precancerous changes of the cervix.

● Impact of HPV Screening on Cervical Cancer

- Cervical cancer can be easily prevented and treated by early diagnosis and effective management. Especially, HPV screening followed by vaccination can greatly reduce the risk of cervical cancer.

Reference:

1. Comprehensive Cervical Cancer Control, WHO, 2006.
2. Castle, PE. The potential utility of HPV Genotyping in screening and clinical management. 2008. J Natl Compr Canc Netw. 6 (1): 83-95.
3. Norbert Speich, et al., Human papillomavirus (HPV) study of 2916 cytological samples by PCR and DNA sequencing: genotype spectrum of patients from the west German area. 2004. J Med Microbiol. 53: 125-128.
4. http://www.medicinenet.com/genital_warts_in_women/article.htm

*These products can be used for IVD purposes in European union and RUO purposes in other countries.

Product	Cat. No.	Size	Sample Types
HPV4A ACE Screening	HP6401Y	50 rxns	Cervical brush/swab, Liquid-based cytology specimen
HPV/STD4 ACE Screening CE_{1023}	SH1400Y	50 rxns	Cervical brush/swab, Liquid-based cytology specimen

Seeplex®

HPV4A ACE Screening

● Simultaneous genotyping and screening for HPVs in a single test

- Efficient monitoring of the most common genital HPV types

HPV 16	Genotyping
HPV 18	
High-risk HPV common ¹⁾	Screening
HPV 6/11	

1) High-risk HPV common (HRC, 16 types) :

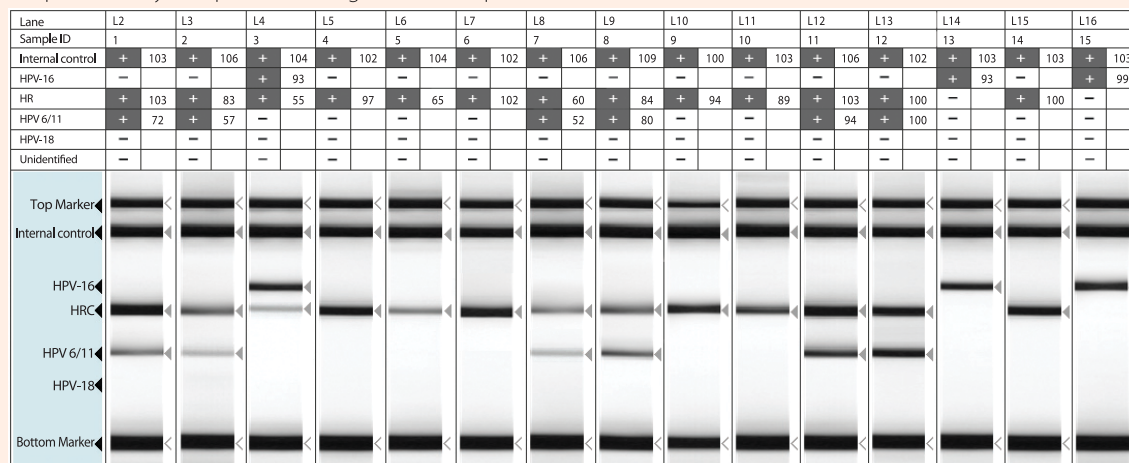
26, 31, 33, 35, 39*, 45, 51, 52*, 53, 56, 58, 59, 66, 68*, 73, 82

* High-risk HPV common primers can detect high-risk HPV types 39, 52 and 68 by cross-reactivity.

Applications:

- To determine the need of colposcopy on patients with ASC-US (atypical squamous cells of undetermined significance) cervical cytology results.
- To assess the presence of high-risk HPV types along with cervical cytology for women aged over 30.
- To test genital warts on patients.

<Rapid and easy interpretation using auto-electrophoresis>



1~15: Clinical samples, HRC: HPV High-risk types (ScreenTape® System, Lab901 Limited)

Seeplex®

HPV/STD4 ACE Screening CE_{1023}

● Simultaneous screening for STD and HPV high-risk/low-risk types in a single test

<i>Chlamydia trachomatis</i> (CT)	STD
<i>Neisseria gonorrhoeae</i> (NG)	
High-risk HPV common ¹⁾	HPV
Low-risk HPV common ²⁾	

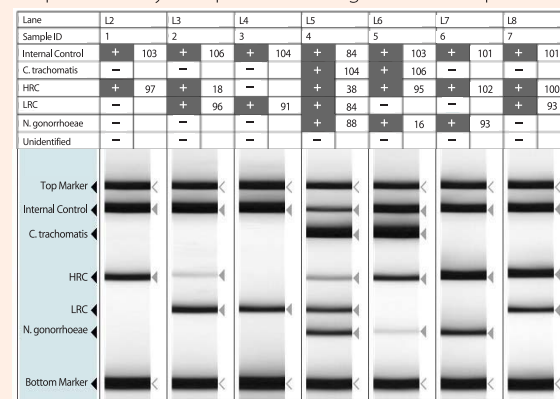
1) High-risk HPV common (HRC, 16 types) :

16, 18, 31, 33, 35, 39*, 45, 51, 52*, 56, 58, 59, 66, 67, 68*, 70

2) Low-risk HPV common (LRC, 5 types) : 6, 11, 42, 43, 44

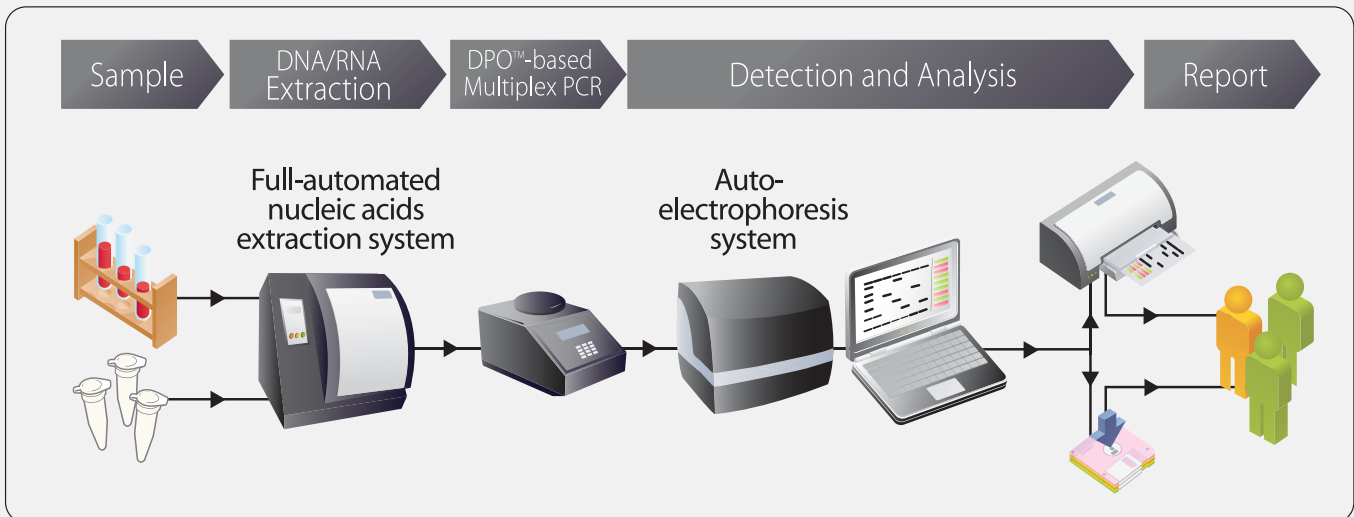
* High-risk HPV common primers can detect high-risk HPV types 39, 52 and 68 by cross-reactivity.

<Rapid and easy interpretation using auto-electrophoresis>



1~7: Clinical samples (ScreenTape® System, Lab901 Limited)

Seeplex[®] Automatic Detection System



Seeplex[®] Key Products

Meningitis	Detection of viruses and bacteria causing Meningitis
Diarrhea	Detection of viruses and bacteria causing Diarrhea
Somatic Mutation	Detection of BRAF mutation (V600E) characteristic for papillary thyroid carcinoma
Respiratory Pathogen	Detection of 12, 6, or 7 Respiratory viruses Detection of 6 Pneumonia bacteria Detection of 13 Respiratory viruses and 5 Pneumonia bacteria
HPV	Screening for HPVs (16, 18, High-risk, and Low-risk common) Screening for 2 STD pathogens (CT, NG) and HPVs (High-risk, Low-risk common)
STD	Detection of 6 STD pathogens Screening for 2 STD pathogens (CT, NG) and HPVs (High-risk, Low-risk common)
Drug Resistance	Detection of Vancomycin-resistant Enterococci (van A, van B) Detection of Clarithromycin-resistant H. pylori (A2143G, A2142G) Detection of Lamivudine-resistant HBV (YVDD, YIDD, L528M, YSDD)
SNP	MTHFR C677T/A1298C genotyping CYP2C19 genotyping ApoE genotyping
TB	MTB and NTM discrimination for culture specimens MTB and M. bovis BCG discrimination for various specimens MTB Detection for various specimens (Nested PCR or Single PCR)



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