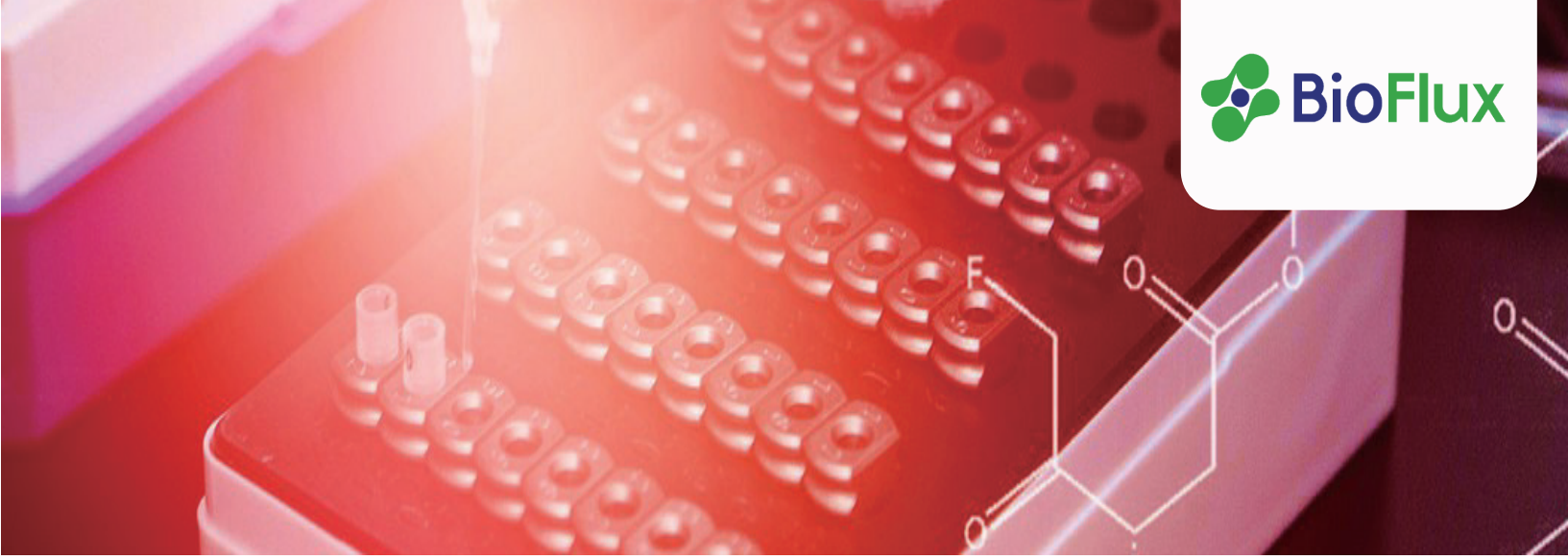


STD Pathogen Multiplex Detection Kit (Fluorescent PCR)

Product Introduction

The co-infection of STDS (Sexually Transmitted Disease) is one of the main reasons to diagnose and cure STDS difficultly. According to the survey of the global STD epidemic, about 60% of STD infected people are accompanied by at least one dominant or latent STD pathogen infection. If insufficient attention is paid to these co-infections, especially the latent co-infections, they often develop into chronic persistent infections, which can cause a series of comorbidities and even lead to the prevalence and spread of STD. Therefore, enough attention must be paid to it.

Multiplex detection of STD pathogens breaks the limitation of traditional single pathogen detection, and can detect multiple STD pathogens at one time, which can effectively find co-infections.

PRINCIPLE

This kit was designed to detect the relatively conserved region of eight pathogens genome respectively by specific primers and fluorescent probes and performs rapid quantitative detection of the pathogens DNA by qPCR after the nucleic acid extraction process. In the extraction and detection process, human RnaseP gene was introduced as a non-competitive internal control to monitor the whole extraction and detection process. In addition, UDG enzyme anti-contamination system was added in the kit to fully decompose possible product contamination and avoid false positive results. The kit mixes all the components in advance, and the experiment can be carried out without additional preparation actions, which is simple and convenient to use.

Product Features

- **Specimens:** Male urethral swabs and female cervical swabs.
- **Simplicity:** Only need one nucleic acid extraction, simultaneously detect eight STD pathogens.
- **Specificity:** No cross reactivity has been observed by testing the clinical positive specimens such as Group B streptococcus, human papilloma virus, Salmonella, Pseudomonas aeruginosa, Escherichia coli, Treponema pallidum, Human cytomegalo virus, Epstein-Barr virus, Human herpes virus type 6, Candida albicans, Pneumonia mycoplasma, Bordetella pertussis, Staphylococcus aureus, Candida glabrata and Adenovirus.
- **Real-time monitoring:** Human RnaseP gene was introduced as a non-competitive internal control to monitor the whole extraction and detection process.
- **Anti-contamination system:** UDG enzyme was added in the kit to fully decompose possible product contamination and avoid false positive results.
- **Easy to use:** Premixed PCR Mix, the experiment can be carried out without additional preparation actions, which is simple and convenient to use.

Product Information

Parameter	Interpretation of parameter
Specimens	Male urethral swabs, Female cervical swabs
Pathogen	Chlamydia trachomatis(CT), Neisseria gonorrhoeae(NG)、Mycoplasma genitalium(MG), Herpes simplex virus 1(HSV-1), Herpes Simplex Virus 2(HSV-2), Ureaplasma urealyticum(UU), Gardnerella vaginalis(GV), Trichomonas vaginalis(TV)
Limit of Detection (LoD)	The LOD of Chlamydia trachomatis (CT) is 1×10^3 copies/mL, The LOD of Neisseria gonorrhoeae (NG) is 1×10^3 copies/mL, The LOD of Mycoplasma genitalium (MG) is 200 copies/mL, The LOD of Herpes simplex virus 1 (HSV-1) is 200 copies/mL, The LOD of Herpes simplex virus 2 (HSV-2) is 200 copies/mL, The LOD of Gardnerella vaginalis (GV) is 200 copies/mL, The LOD of Trichomonas vaginalis (TV) is 200 copies/mL, The LOD of Ureaplasma urealyticum (UU) is 1×10^3 CCU /mL
Analytical	No cross reactivity has been observed by testing the clinical
specificity	positive specimens such as Group B streptococcus, human papilloma virus, Salmonella, Pseudomonas aeruginosa, Escherichia coli, Treponema pallidum, Human cytomegalo virus, Epstein-Barr virus, Human herpes virus type 6, Candida albicans, Pneumonia mycoplasma, Bordetella pertussis, Staphylococcus aureus, Candida glabrata and Adenovirus
Applied instrument	real-time PCR detection system from Bioer (Model FQD) or real-time PCR instrument (Model ABI7500, ABI QuantStudio series)
Test time	Premixed PCR Mix, testing within one hour
Storage	-25°C~-15°C , away from light

Application case

Case 1

This kit was used to detect eight pathogens and draw standard curves. The correlation coefficient of Ct values of target genes was above 0.995, indicating that the kit had linearity and high PCR efficiency.

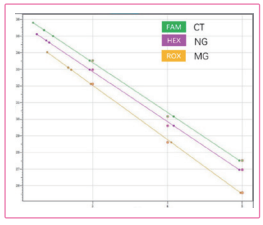


Figure 1. STD Pathogen Multiplex Detection Kit (Fluorescent PCR) CT/NG/MG PCR Mix standard curves.

Sample	CT	NG	MG	MG
S1	28.18	27.78	25.68	27.63
S2	30.80	30.5	28.73	27.21
S3	34.61	33.91	32.3	27.26
S4	36.04	36.04	34.6	27.3
Negative	Undet	Undet	Undet	27.6

Table 1. STD Pathogen Multiplex Detection Kit (Fluorescent PCR) CT/NG/MG PCR Mix CT value

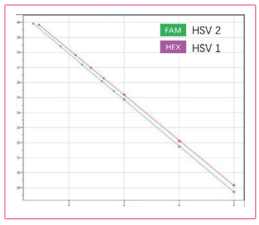


Figure 2. STD Pathogen Multiplex Detection Kit (Fluorescent PCR) HSV1/HSV2 PCR Mix standard curves.

Sample	HSV-2	HSV-1	IC
S1	28.12	28.51	27.43
S2	31.15	31.48	27.21
S3	34.29	34.59	27.26
S4	36.65	37.18	27.18
Negative	Undet	Undet	27.24

Table 2. STD Pathogen Multiplex Detection Kit (Fluorescent PCR) HSV1/HSV2 PCR Mix CT value

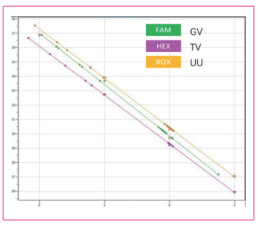


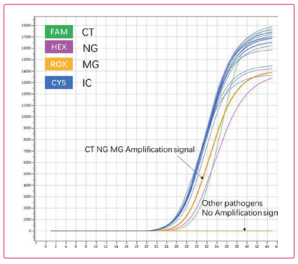
Figure 3. STD Pathogen Multiplex Detection Kit (Fluorescent PCR) GV/TV/UU PCR Mix standard curves

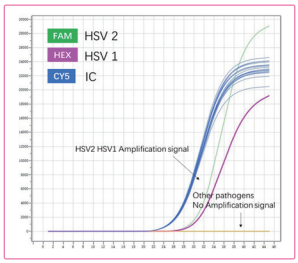
Sample	GV	TV	UU	IC
S1	27.37	25.96	26.91	27.77
S2	29.91	29.22	30.16	27.27
S3	33.88	32.74	33.76	27.54
S4	37.08	36.67	37.38	27.35
Negative	Undet	Undet	Undet	27.52

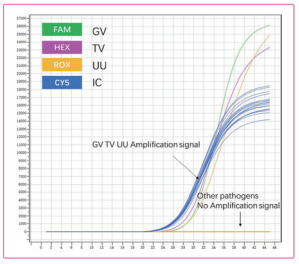
Table 3. STD Pathogen Multiplex Detection Kit (Fluorescent PCR) GV/TV/UU PCR Mix CT value

Case 2

No cross reactivity has been observed by testing the clinical positive specimens such as Group B streptococcus, human papilloma virus, Salmonella, Pseudomonas aeruginosa, Escherichia coli, Treponema pallidum, Human cytomegalo virus, Epstein-Barr virus, Human herpes virus type 6, Candida albicans, Pneumonia mycoplasma, Bordetella pertussis, Staphylococcus aureus, Candida glabrata and Adenovirus.







Ordering Information

Product Name	Cat#	Package
STD Pathogen Multiplex Detection Kit (Fluorescent PCR)	BSJ49S1	24T
	BSJ49M1	48T

BIOER TECHNOLOGY
Add: 1192 Bin An Rd., Hi-tech (Binjiang) District, Hangzhou, 310053, P.R.China **Web**: www.bioer.com
Tel: +86-571-87774513 **Fax**: +86-571-87774553 **E-Mail**: reagent@bioer.com.cn **E-Date**: 2023.09