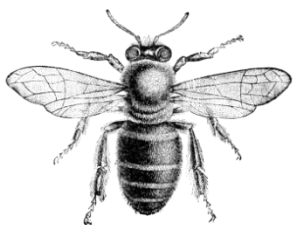


# Detection of Honey Bee Pathogens

## Real-time RT-PCR Detection System

### Honey Bee diseases detection system

Honey-bee colony losses are an increasing problem in the world. There are many different causes, including infections due to various pathogens. Molecular biology techniques have been developed to detect and identify honey-bee pathogens. Especially the quantitative real-time RT-PCR technique is the most sensitive, specific and reliable method to detect the diseases. The application of qPCR technique to honey-bee pathogens is the latest. Thus, qPCR method can become a powerful tool for investigating pathogenic infections of honey bee.



(Credit : OIE)

*"Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2021"*



## LiliF® SBV/KSBV/DWV/BQCV Real-time RT-PCR Kit



<Cat. No. IPC12023>



### Description

- LiliF® SBV/KSBV/DWV/BQCV Real-time RT-PCR Kit is able to detect honey bee RNA viruses such as SBV (Schmallenberg virus), KSBV (Korea Schmallenberg virus), DWV (Deformed wing virus) and BQCV (Black queen cell virus), by real-time RT-PCR technology on the basis of a genetic database of target nucleic acid fragments. It can accurately determine the infection of all major types at one time using the real-time RT-PCR (quantitative) method, and takes only 2 hours for detection.

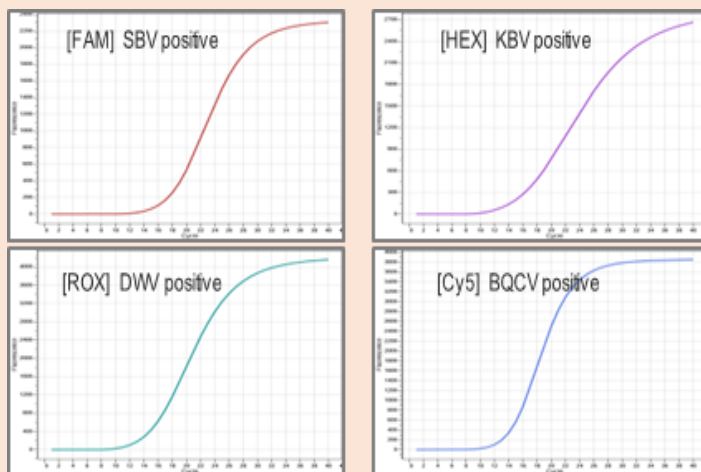
### Kit Contents

Product	Amount	Cat. No.
LiliF® SBV/KSBV/DWV/BQCV Real-time RT-PCR Kit	50 Test/Kit	IPC12023
Contents	Amount	
2X qRT-PCR Master Mix Solution	280 µl x 2 tubes	
SBV/KSBV/DWV/BQCV Detection solution	140 µl x 2 tubes	
Positive Control (External PC)	25 µl x 3 tubes	
DNase/RNase Free Water	1 ml x 1 tube	

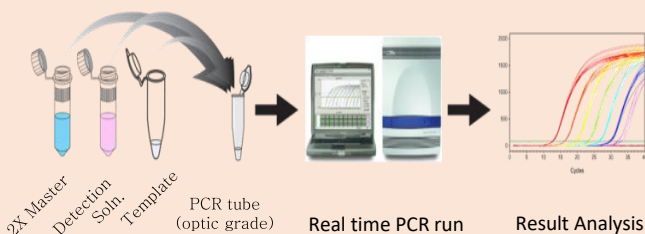
### Related Product

Product	Amount	Cat. No.
Patho Gene-spin® DNA/RNA Extraction Kit	50 Col/kit	17154
Miracle-AutoXT Automated Nucleic Acid Extraction System	1 unit	IMC-NC15PLUS

### Example Results



### Protocol



### Step of the PCR reaction & Fluorescent Channel

Step	Cycle	Temp	Time	Channel setting
Reverse Transcription Step	1	45°C	30 min.	SBV FAM
	1	95°C	10 min.	KSBV HEX (JOE, VIC)
PCR Step	40	95°C	15 sec.	DWV ROX (Texas Red, Cal Red)
		62°C	1 min.	BQCV Cy5 (Quasar670)



## LiliF® ABPV/KBV/IAPV/CBPV Real-time RT-PCR Kit



<Cat. No. IPC12024>



### Description

- LiliF® ABPV/KBV/IAPV/CBPV Real-time RT-PCR Kit is able to detect honey bee RNA viruses such as ABPV (Acute bee paralysis virus), KBV (Kashmir bee virus), IAPV (Israle Acute Paralysis virus) and CBPV (Chronic Bee Paralysis virus), by real-time RT-PCR technology on the basis of a genetic database of target nucleic acid fragments. It can accurately determine the infection of all major types at one time using the real-time RT-PCR (quantitative) method, and takes only 2 hours for detection.

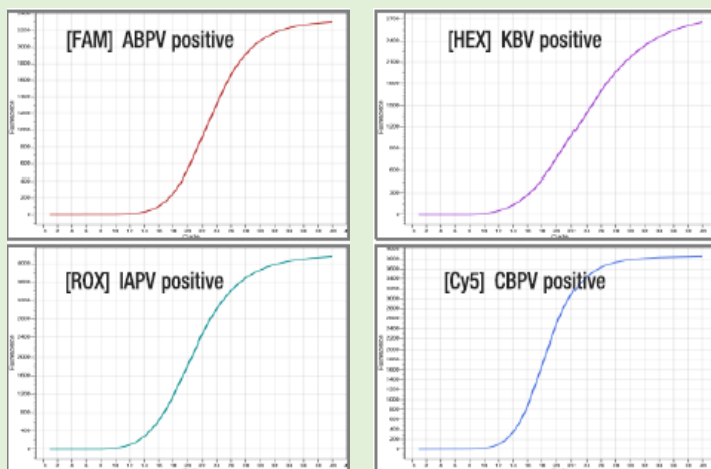
### Kit Contents

Product	Amount	Cat. No.
LiliF® ABPV/KBV/IAPV/CBPV Real-time RT-PCR Kit	50 Test/Kit	IPC12024
Contents	Amount	
2X qRT-PCR Master Mix Solution	280 µl x 2 tubes	
SBV/KSBV/DWV/BQCV Detection solution	140 µl x 2 tubes	
Positive Control (External PC)	25 µl x 3 tubes	
DNase/RNase Free Water	1 ml x 1 tube	

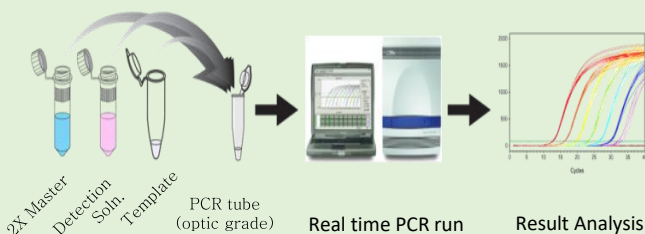
### Related Product

Product	Amount	Cat. No.
Patho Gene-spin® DNA/RNA Extraction Kit	50 Col/kit	17154
Miracle-AutoXT Automated Nucleic Acid Extraction System	1 unit	IMC-NC15PLUS

### Example Results



### Protocol



### Step of the PCR reaction & Fluorescent Channel

Step	Cycle	Temp	Time	Channel setting
Reverse Transcription Step	1	45°C	30 min.	SBV FAM
	1	95°C	10 min.	KSBV HEX (JOE, VIC)
PCR Step	40	95°C	15 sec.	DWV ROX (Texas Red, Cal Red)
		62°C	1 min.	BQCV Cy5 (Quasar670)