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Pet Pathogen Nucleic Acid Extraction Kit

USER MANUAL

【Composition and specifications】
Nucleic acid extraction reagent 16 units
magnetic cover 16 units
User manual 1 piece

【Storage and shelf life】
Storage temperature 4°C-30°C; shelf life: 18 months, please use it within the expiration date.

【Operating environment】
Recommended operating temperature is 20-25 °C.

【Specimens】
Pleural effusion, ascites, stool swabs, anal swabs, eye/nasopharyngeal swabs, EDTA anticoagulant blood.

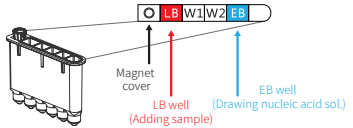
【Sampling requirements】
Liquid sample: (including blood sample, abdominal effusion, pleural effusion or other liquid samples, etc.)
Directly take 200μL and add it to LB tube containing lysis buffer for lysis. If the sample is viscous, dilute it with preservation buffer, and then add 200μL solution to LB tube for lysis.

Swab sample:
1. Fecal swab: take proper amount with a swab
2. Anal swab: moisten the swab with dilution buffer, and then wipe specimen
3. Eye/nasopharyngeal swab: swab under the eyelid and fully wipe to collect eye swab samples; swab oral and nasal discharge properly to collect nasopharyngeal swab samples
4. After swab sample collection, quickly snap the swab handle and place in the preservation buffer, and then shake it to fully dissolve the pathogen on the swab into the preservation buffer.

It is recommended that nucleic acid extraction and detection should be performed immediately after sample collection. If storage needed, samples can be stored at 4°C temporally or below -20°C for a longer time. Samples need to be refrigerated during transportation.

【Preparation before testing】
1. Please read the instruction manual carefully before testing, be familiar with each step, and strictly follow the requirements when using the kit.
2. Wear disposable gloves and masks, operate under the condition meeting the requirement of PCR testing environment.

【Operation】
Nucleic acid extraction : (using nucleic acid extractor)
1. Take out the extraction cartridges, as needed. Tear off the top seal according to the instruction. The well positions of the rack as shown in below picture.



2. Use the pipette to take 200 μL of sample and add it to the LB well.
3. Take out a magnetic cover and place it in the corresponding position of the cartridge.
4. Press "In/Out ▼" button of the instrument, put the rack in the holder of the automatic extractor, press "In/Out ▼" button again. The rack will be sent into the instrument and the door will close.

> **Note:** The cartridge needs to be placed in the holder according to the direction displayed on the side label and should lie to the bottom of the holder. If the cartridge is located correctly, the indicator light corresponding to the channel position will show red light, otherwise the light will not be on.

5. Press "operate ▶" button to start the nucleic acid extraction. After the instrument finish the operation and play a prompt sound, press "In/Out ▼" bottom and take out the rack.

> **Note:** Extracted nucleic acid samples are recommended to be tested immediately; If not in immediate use, please seal them with stickers and store at -20°C or -80°C.

After nucleic acid extraction, Please follow the PCR amplification instructions for PCR amplification

【Limitations】
1. Aerosol contamination of amplification products can easily cause false positive results. The testing laboratory should be set up. strictly following the requirements of the PCR testing laboratory
2. A negative result cannot completely exclude the possibility of pathogen infection and needs to be diagnosed with other clinical indicators.

【Product quality indicators】
1. Sensitivity: The product detection limit of the kits is 1000 copies/ml.
2. Specificity: The test kits do not detect the cross-reaction of the pathogen samples.
3. Precision: When a strong positive sample and a weak positive sample are repeated testing for 10 times in a row separately, the CV values of their Ct values show less than 5%.

【Precautions】
1. Product quality inspection: Before using PCR amplification reagent, unpack to check if the lyophilized reagent on the tube bottom is normal (white, clumped). If liquefied, it cannot be used. Otherwise, it will affect the PCR results.
2. Pipette use: When drawing 20μL of nucleic acid supernatant as the template for PCR amplification, only depress the plunger of the pipette to the first stop. Do not press to the bottom, otherwise the sample volume will exceed 20μL which will affect the results.
3. Sample information setting: Make sure that the PCR tubes are placed in the same sample well position as set in the instrument. For example, if the PCR tube is placed in the #1 well of the sample plate, then select the corresponding #1 position in the interface. After setting the sample name and the test item, press the Run icon to start the PCR amplification process.

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寵物病原體

核酸萃取試劑

使用說明書

【試劑盒組成與規格】
核酸萃取卡盒 16個
磁套棒 16根
說明書 1份

【儲存條件與有效期】
試劑盒儲存溫度：4°C-30°C
試劑盒有效期18個月，請於有效期內使用

【儀器工作環境】
建議在環境溫度20-25°C下進行實驗

【樣本類型】
胸水、腹水、糞便拭子、肛拭子、眼鼻咽拭子、EDTA抗凝全血

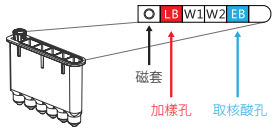
【採樣要求】
液體樣本：（包括血液樣品、腹腔積液、胸腔積液或其他液體樣品等）
直接取200μL加入到裂解液LB管中進行裂解，如樣品粘稠時則先用保存液稀釋，再取200μL加入到LB管中進行裂解

拭子樣本：
1. 糞便拭子：用拭子蘸取適量即可
2. 肛拭子：先把拭子用稀釋液濕潤，然後再擦拭取樣
3. 眼鼻咽拭子：用拭子在眼瞼下，充分擦拭以採集眼拭子樣品；用拭子適度拭抹口腔和鼻腔分泌物，採集鼻咽拭子樣品
4. 拭子樣品採集後，應迅速將拭子頭折斷於保存液中，然後充分震盪，使拭子頭上的病原體充分溶解到保存液中。

樣品採集後建議應馬上進行核酸萃取檢測；如需存放，可於4°C短暫保存或-20°C以下長期保存；樣品送檢運輸時，需要冷藏運輸。

【實驗前準備】
1. 請在實驗開始前仔細閱讀本說明書，熟悉各個步驟，並嚴格按照本說明書的要求使用本試劑盒
2. 操作過程應戴好一次性手套和口罩，並在符合PCR檢測實驗環境的條件下進行操作
3. 根據樣本數量取出相應的提取試劑卡盒和磁棒套，以備使用

【操作步驟】
核酸萃取：(使用核酸萃取儀)
1. 取出相應數量的提取試劑萃取盒，按照標識撕開頂部封膜，萃取盒各個孔位如示意圖所示



2. 使用微量分注器吸取200μL樣品加入到萃取盒LB孔中
3. 取出一根磁棒套，放入萃取盒的「磁套」位
4. 儀器上按「進/出艙」鍵 ▼，將萃取盒放入自動提取儀的卡座上，再次按「進/出艙」鍵 ▼，萃取盒進入儀器，艙門關上

> **注意：**萃取盒需要按照側面標識方向放入卡座，且要平放至底；萃取盒放置正常，儀器面板上對應通道位置的提示燈會亮紅燈，否則提示燈不亮

5. 按「運行」鍵 ▶，儀器開始核酸萃取，等待儀器運行結束並發出提示音後，按下「進/出倉」鍵 ▼，取出萃取盒。

> **注意：**已經萃取好的核酸樣品，建議馬上進行檢測；如暫時不用，請貼上封口膜後放置於-20°C或-80°C條件下保存

核酸萃取完成後，請依PCR擴增說明進行PCR擴增

【檢測方法的局限性】
1. 擴增產物的氣溶膠污染很容易造成假陽性，檢測實驗室應嚴格按照PCR檢測實驗室的要求設置。
2. 陰性結果不能完全排除病原體感染的可能，需結合其他臨床指標進行判斷。

【產品性能指標】
1. 靈敏性：本試劑盒的產品檢測限為1000 copies/ml。
2. 特異性：本試劑盒非檢測病原體樣本無交叉反應。
3. 精密度：一份強陽性和一份弱陽性的標本分別連續重複10次檢測，其Ct值的CV值小於5%。

【注意事項】
1. 產品檢查：使用PCR擴增試劑前，先拆開包裝檢查管底乾粉是否正常（白色、成團），如已經液化則不能再使用，否則會影響PCR結果。
2. 微量分注器使用：吸取20μL核酸上清作為PCR的擴增範本時，微量分注器應只壓至一檔，不能壓到最底部，否則吸取體積將超過20μL，影響檢測結果。
3. 樣本資訊設置：確保PCR管放置的孔位與儀器中設置的樣本位置一樣，如PCR管放置在擴增室中的1號位置，則在樣本設置介面選擇對應的1號進行設置，設置好樣本名和檢測項目後，點擊運行圖示即開始PCR擴增反應。

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