

Prenatal chromosomes probe detection kit

Instructions Manual

[Product Name] Prenatal chromosomes probe detection kit

[Trade Name] Fast Fluorescence In Situ Hybridization Probe Kit

[Package Specification] 10 Tests/box

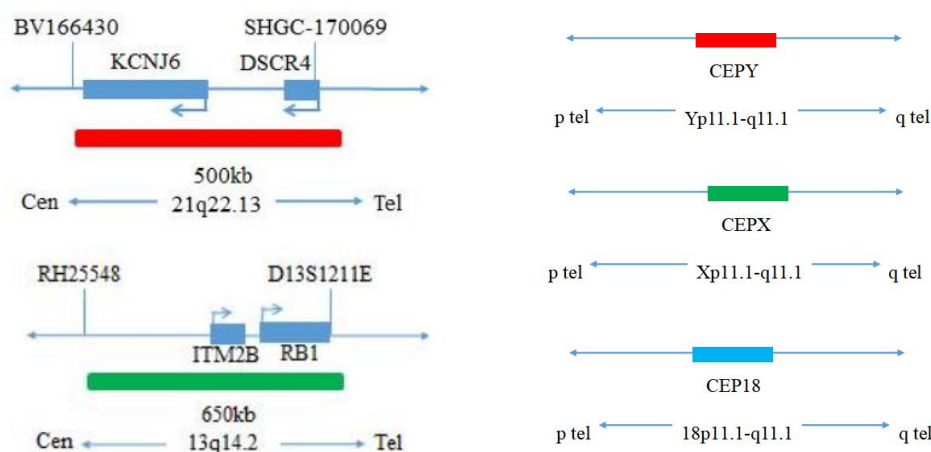
[Product Introduction]

The kit uses orange fluorescein to label the 21q22.13 probe and CEPY probe, uses green fluorescein to label the 13q14.2 probe and CEPX probe, uses aqua fluorescein to label the CEP18 probe, CEP18/CEPX/CEPY tricolor probes and 13q14.2/21q22.13 dual-color probes specifically bind to the target gene regions through in situ hybridization.

[Reagents Provided]

The kit consists of CEP18/CEPX/CEPY tricolor probes and 13q14.2/21q22.13 dual-color probes.

Probe Name	Spec.	QTY	Main Components
	10 Tests/box		
13q14.2/21q22.13 dual-color probes	100µl/Tube	1	21q22.13 orange, 13q14.2 green
CEP18/CEPX/CEPY tricolor probes	100µl/Tube	1	CEPY orange, CEPX green probe, CEP18 aqua



[Storage and Handling]

Unopened: Store at -20°C±5°C, sealed and protected from light until the expiration date.

Opened: Limited to ≤10 freeze-thaw cycles (2–8°C storage, ≤24 h per cycle). Return to -20°C±5°C and protect from light immediately after use.

Manufacturing and expiration dates are indicated on the label.

[Microscope Equipment and Accessories]

Fluorescence microscopy imaging system: Fluorescence microscope with compatible filter sets.

Orange (547/565); Green (495/517); Aqua (431/480); DAPI (367/452).

Automated hybridizer: Temperature uniformity ≤ 1 °C.

[Sample Requirements]

Amniotic fluid cell specimen.

[Test Method]

1. Pretreatment

- 1) Baking: Bake slides at 56 °C for 30 min.
- 2) Washing: Wash slides in 1×PBS at 37 °C for 5 min.
- 3) Digestion: Digest slides in pepsin working solution at 37 °C for 10 min.
- 4) Washing: Wash slides in 1×PBS for 3 min at room temperature.
- 5) Fixation: Fix slides in 1% PFA/PBS for 10 min at room temperature.
- 6) Washing: Wash slides in 1×PBS for 3 min at room temperature.

7) Dehydration: Dehydrate slides serially in 70%, 85%, and 100% ethanol for 2 min each at room temperature.

8) Air-drying: Air-dry slides at room temperature.

Note: Perform subsequent steps in a dark room.

2. Denaturation and Hybridization

1) Probe: Centrifuge for 5 s before use, apply 10ul probe to the target area.

2) Denature at 88 °C for 2 min, then hybridize at 45 °C for 2–16 h.

3. Post-hybridization Washing

1) Remove rubber cement, wash slides in 2×SSC for 5 s, then remove the coverslip.

2) Wash slides in 2×SSC for 1 min at room temperature..

3) Wash slides in preheated 0.3% NP-40/0.4×SSC solution at 68°C for 2 min.

4) Wash slides in deionized water at 37°C for 1 min.

5) Air-dry slides at room temperature.

4. Counterstaining

Add 10 µL of DAPI counterstain and apply a coverslip immediately.

5. FISH Results Observation

Observe the slide under a fluorescence microscope: locate cells at 10×, identify a well-distributed cell area at 40×, then examine nuclear FISH signals at 100×.

[Interpretation]

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[Precautions]

1. This kit is for professional use only and shall be operated by trained laboratory personnel familiar with molecular biology and FISH experimental procedures.

2. FISH test results may be affected by multiple factors, including sample quality and handling conditions, hybridization temperature/time parameters, operating environment (e.g., temperature, humidity), and inherent limitations of molecular biology techniques. These factors may potentially lead to erroneous or inaccurate test outcomes.

3. Users shall acknowledge and understand the potential testing errors and accuracy limitations of this kit and shall not solely rely on the test results for critical decision-making without further verification.

4. All chemicals contained in the kit are potentially hazardous. Avoid direct contact with skin, eyes, and mucous membranes; wear appropriate personal protective equipment (PPE) such as gloves and goggles during operation. Used kit components and waste shall be disposed of in accordance with local laboratory safety regulations and environmental protection requirements.

[Basic Information]

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