

Bladder Cancer Detection Probe

Our Profile: Wuhan HealthCare Biotechnology Co., Ltd. (HealthCare) offers a wide range tools in Molecular Diagnostics for medical and research laboratories. HealthCare innovative products consist of FISH probes (Fast Probe®), Pharmacogenetics Testing and FISH Pretreatment Instrument and are mainly used in areas such as Oncology, Cardio-Cerebrovascular, Hematology, Pre-postnatal Screening and Other major diseases.

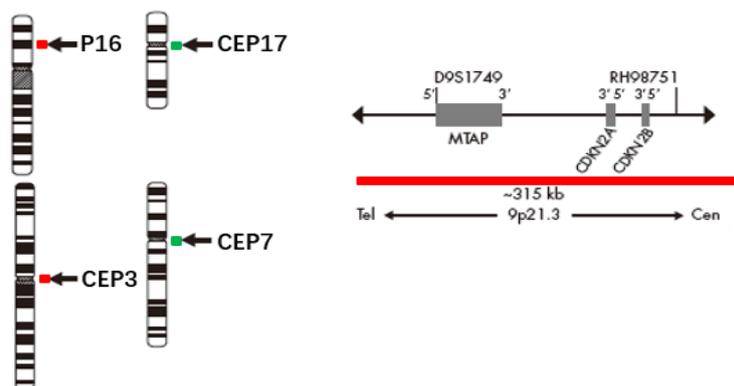
Product Advantages:

- **Fleetness:** Tissue probe hybridization time: 2 hours. Cell probe hybridization time: 1 hour.
- **Accuracy:** Less non-specific background staining (dyeing). Increase difficult samples detection rate.
- **Reproducibility:** Different laboratories test results are highly reproducible.

About Bladder Cancer

Bladder cancer is the most common malignancy of the urinary system, occurring predominantly in men, with an incidence of about 4 times than that of women. The average age of onset is 65 years old. Of the new cases, 75% are superficial (50-80% of them have one or more relapses after treatment; 15-25% will progress to invasive cancer. Therefore, patients with superficial bladder cancer need to pay close attention to the recurrence and deterioration of the tumor. Clinical cystoscopy or urine exfoliative cytology is recommended clinically for patients with hematuria over the age of 40. However, cystoscopy will cause unnecessary pain to the patient, and due to stimulation of the bladder wall tumor, it can cause malignant expansion and metastasis of tumors, and is not suitable for large-scale screening, but cytological examination is not sensitive enough. The detection of urinary sediment cells by fluorescence in situ hybridization showed a strong advantage in the early diagnosis and postoperative recurrence of bladder cancer.

Probe Description

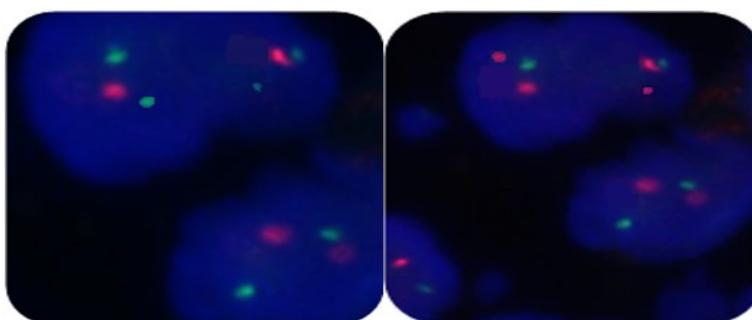


The bladder cancer probe consists of two sets of probes (see above image). The P16 gene region is marked with orange dye, the centromere region of chromosome 17 (CEP17) is marked with green dye, the centromere region of chromosome 3 (CEP3) is marked with orange dye, and chromosome 7 (CEP7) is marked with green dye. The P16 gene marker region is located at 9p21.3, and the chromosome centromere probe is labeled with a specific alpha satellite sequence.

Clinical Significance

The most common genetic changes in urinary transitional epithelial cell carcinoma are the loss of chromosome 9 part (such as p16 locus) or the total loss of the epithelial cells in the urinary system. In addition, the development of urinary transitional cell carcinoma is closely related to chromosomal instability and the aneuploidy of chromosomes 3, 7 and 17 in particular.

FISH is a non-invasive test that can detect urine exfoliated cells in the patient. If there are two or more abnormal indicators in the above four indicators, or if one of the indicators is complicated, it can be basically defined as urinary transitional epithelial cell carcinoma.



P16 loss

Chromosome 7 loss

Size Specifications

Product Name	Mark	Size
Bladder Cancer Detection Kit (IVD)	 / 	10 Tests/Box (100µl)
Bladder Cancer Detection Kit (IVD)	 / 	20 Tests/Box (200µl)

Applications

Solid tumors

Product Description

Bladder cancer

References

- Barocas DA, et al. (2006) BJU Int 99: 290-5.
- Gallucci M, et al. (2005) J Clin Pathol 58: 367-71.

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