

---

## Product Data Sheet

### Bladder FISH Probe Cocktail

Custom FISH Probe Cocktail

Catalog#: P-F-002

#### Product Contents:

The Bladder FISH Probe Cocktail is provided ready to use in hybridization buffer. Blocking DNA is included to suppress non-specific binding to similar sequences outside of the indicated binding sites. Researchers are advised to optimize slide processing and hybridization conditions.

Volume: 250 $\mu$ l  
Reactions: 50 (5 $\mu$ l/ reaction)

#### Included FISH Probes:

The following table indicates each of the individual FISH probes and associated colors included in the Urine FISH Probe Cocktail.

Gene	Locus	Color	Dye	Absorbance	Emission
CEN3	D3Z1	Red	Alexa594	590	615
CEN7	D7Z1	Green	Alexa488	495	519
CEN17	D17Z1	Aqua	DEAC	432	472
P16	9p21	Yellow	Alexa532	532	554

#### Clinical Relevance:

Standard of care for the detection bladder cancer is cytological evaluation of cell morphology and the FDA approved UroVysion assay.

**Aneuploidy:** Copy number increases of chromosomes 3, 7, and 17 are associated with bladder cancer.

**9p21 Deletion:** Deletion of 9p21 (p16) is associated with bladder cancer.

## Centromere Specific Probe Specifications:

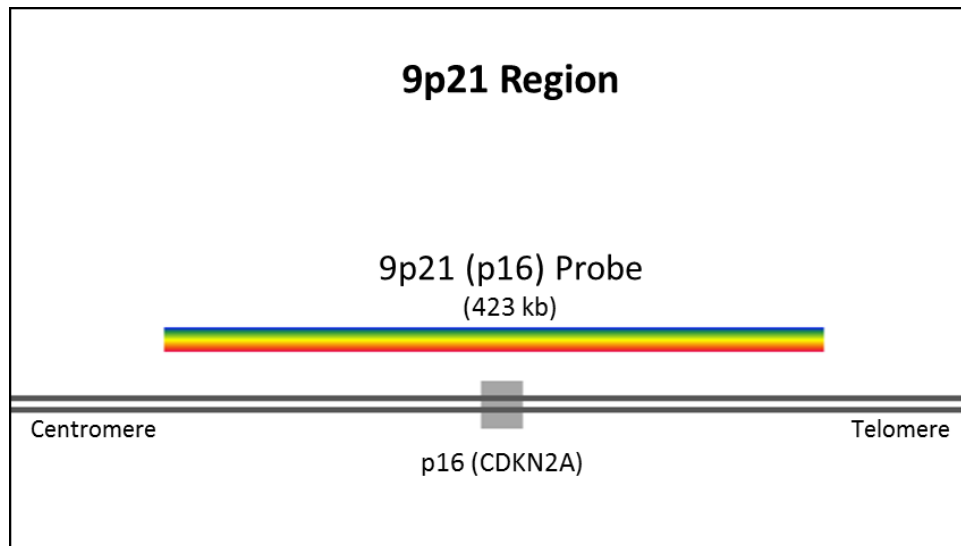
Each of the centromere specific probes target the  $\alpha$ -satellite region of the centromere specific for the indicated chromosome.

## P16 (9p21) Probe Specifications:

Probe and target gene boundaries are indicated in relation to proximity to the centromere or telomere. Positions are based on UCSC genome assembly GRCh37/hg19.

Locus	Target			Probe		
	Gene	Centromere	Telomere	Centromere	Telomere	Size (Kb)
9p21	p16 (CDKN2A)	21,967,751	21,994,490	21,764,403	22,187,312	423

## Probe Map:



## Storage:

Store at +4°C to -20°C  
Protect from direct light.

## References:

1. AckSkacel M, Fahmy M, Brainard JA, Pettay JD, Biscotti CV, Liou LS, Procop GW, Jones JS, Ulchaker J, Zippe CD, Tubbs RR.: Multitarget fluorescence in situ hybridization assay detects transitional cell carcinoma in the majority of patients with bladder cancer and atypical or negative urine cytology. J Urol. 2003 Jun;169(6):2101-5.