

# A Lab-on-a-Chip Device Integrated DNA Extraction and Solid Phase PCR Array for the Genotyping of High-Risk HPV in Clinical Samples

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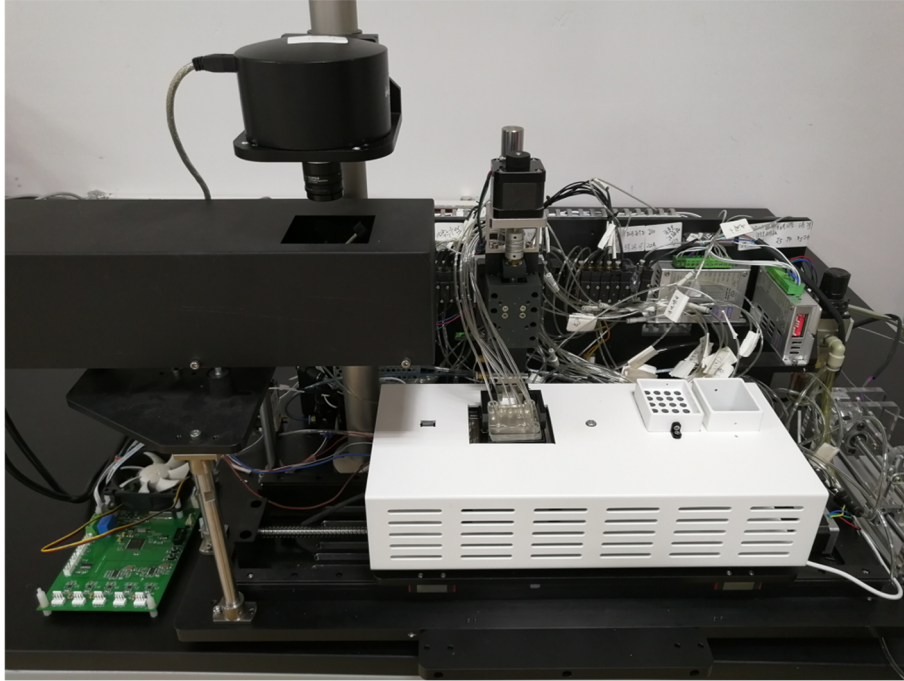
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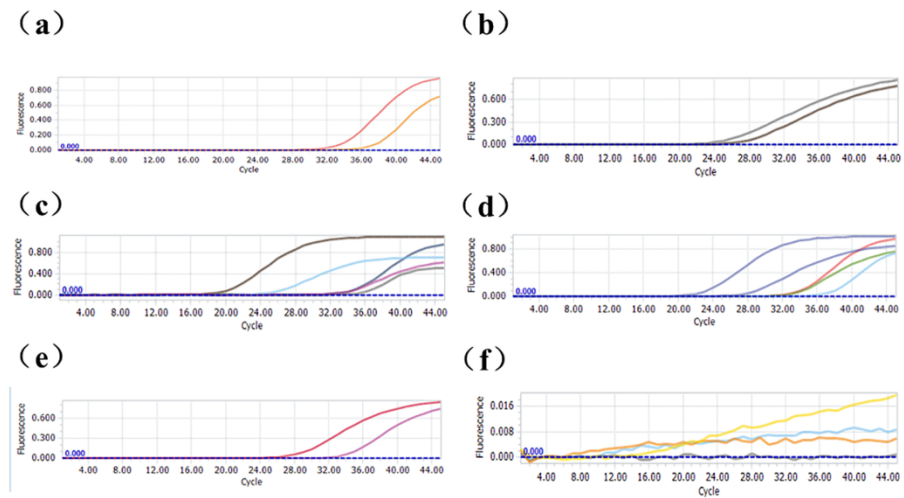
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**Table 1.** List of primers and probes used in this study.

Genotype	Primer sequence (5' - 3')	Amplicon length
HPV 16	F: TAGCAGCAACGAAGTATCCTCTCCT R: CY5- GTGAGGATTGGAGCACTGTCCACTGAGTCTCT	205 bp
	Solid-Probe: TTTTTTTTTTCCCCCCCCCAGCGACCAAGATCAG AGCCAGACACC GGAAACCCCTG	
HPV 18	F: TCCAACGACGCAGAGAAACAC R: CY5- GGTCGGCTCGTCGGGCTGGT	204 bp
	Solid-Probe: TTTTTTTTTTCCCCCCCCCATTTGTATTGCATTTAG AGCCCCAAAA TGAAATTCCGG F: GGGCGTCTGCAACTACTACTTCTACTTT R: CY5-	
HPV 31	CAGAAAATATGGGAATGTCAAAACCTGTACTTAGTGGC R: CY5- TATAGGTGCAACGTTAGA ACTACACACAGTCCGCT	185 bp
	Solid-Probe: TTTTTTTTTTCCCCCCCCCACATTTATGCAGACAC TGATTTTACTGT GGATACACCTG F: CACAGACACCGGCCAGCCCCT	
HPV 33	R: CY5- TATAGGTGCAACGTTAGA ACTACACACAGTCCGCT	130 bp
	Solid-Probe: TTTTTTTTTTCCCCCCCCCGGCCAGCCCCTTACAA AGCTGTTCTGTG CAGACCCC F: TGGAAACTGAGCAGATGGCAC	
HPV 58	R: CY5- GGTC TAACTAATTCCATAAAAACITACTCCATAAGCT	234 bp
	Solid-Probe: TTTTTTTTTTCCCCCCCCCGTTCCATTACAAAATA TTAGTAATATTTT ACATAACAGT	



**Figure S1:** The platform combined a thermoelectric unit, a fluorescence-detecting system and fluid drive control unit for high-risk HPV genotyping.



**Figure S2:** The result of twenty clinical samples analyzed on Roche MagNA Pure 24 for DNA extraction and Roche LightCycler 96 for real-time PCR. (a) Sample 1 and Sample 2 were HPV16 genotype; (b) Sample 3 and Sample 4 were HPV18 genotype; (c) Samples 5–9 were HPV31 genotype; (d) Samples 10–14 were HPV33 genotype; (e) Samples 15, 16 were HPV58 genotype; (f) Samples 17–20 were negative.