

COMMUNICATION

Electronic Supplementary Information (ESI)

**Table S1. HPV probe sequences and associated channel dyes.** Associated spectra for each dye are shown in Main Text Figure 2.

HIGH RISK HPV		Probe Dye
HPV16	GTC ATT ATG TGC TGC CAT ATC TAC TTC AGA	<b>B</b>
HPV18	TGC TTC TAC ACA GTC TCC TGT ACC TGG GCA	<b>C</b>
HPV31	TGT TTG TGC TGC AAT TGC AAA CAG TGA TAC	<b>E</b>
HPV33	TTT ATG CAC ACA AGT AAC TAG TGA CAG TAC	<b>F</b>
HPV35	GTC TGT GTG TTC TGC TGT GTC TTC TAG TGA	<b>F</b>
HPV39	TCT ACC TCT ATA GAG TCT TCC ATA CCT TCT	<b>F</b>
HPV45	ACA CAA AAT CCT GTG CCA AGT ACA TAT GAC	<b>D</b>
HPV51	AGC ACT GCC ACT GCT GCG GTT TCC CCA ACA	<b>F</b>
HPV52	TGC TGA GGT TAA AAA GGA AAG CAC ATA TAA	<b>F</b>
HPV56	GTA CTG CTA CAG AAC AGT TAA GTA AAT ATG	<b>F</b>
HPV58	GTA CTG CTA CAG AAC AGT TAA GTA AAT ATG	<b>F</b>
HPV59	TCT ACT ACT GCT TCT ATT CCT AAT GTA TAC	<b>F</b>
HPV66	TAT TAA TGC AGC TAA AAG CAC ATT AAC TAA	<b>F</b>
HPV68	TCT ACT ACT ACT GAA TCA GCT GTA CCA AAT	<b>F</b>
LOW RISK HPV		
HPV6	ATC CGT AAC TAC ATC TTC CAC ATA CAC CAA	<b>G</b>
HPV11	ATC TGT GTC TAA ATC TGC TAC ATA CAC TAA	<b>G</b>
HPV40	GCT GCC ACA CAG TCC CCC ACA CCA ACC CCA	<b>G</b>
HPV42	CTG CAA CAT CTG GTG ATA CAT ATA CAG CTG	<b>G</b>
HPV43	TCT ACT GAC CCT ACT GTG CCC AGT ACA TAT	<b>G</b>
HPV44	GCC ACT ACA CAG TCC CCT CCG TCT ACA TAT	<b>G</b>

**Table S2. Reproducibility of the SERS assay compared to PCR-EIA using a HPV positive human cell line titration series.**

CaSki Titration Series	PCR-EIA (3 replicates)	SERS (3 replicates)
$1 \times 10^{7*}$	100% <sup>§</sup>	100%
$1 \times 10^6$	100%	100%
$1 \times 10^5$	100%	100%
$1 \times 10^4$	100%	100%
$1 \times 10^3$	66.7%	66.7%
$1 \times 10^2$	0%	0%
$1 \times 10$	0%	0%
Negative control	0%	0%

\*The estimated number of HPV viral copies

§ The percentage of positive replicates detected.