

ZytoFast® HPV-CISH System



Background

The ZytoFast® HPV-CISH System is designed for the detection and discrimination of human papillomavirus (HPV) DNA in paraffin-embedded tissue sections or cell samples.

At least 50 percent of sexually active men and women acquire some form of genital HPV infection at some point in their lives. Most of the approx. 30 identified genital HPV types, predominantly types 6 and 11, are called "low-risk" types, and may cause mild Pap test abnormalities or genital warts. Until now, approximately 10–15 HPV types are associated with lesions that can progress to cancer. Among those are the HPV types 16/18/31/33/35/39/45/51/52/56/58/59/66/68/82.

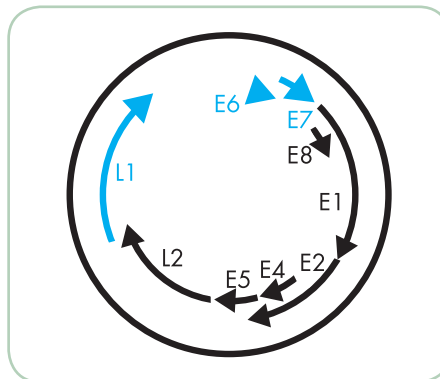
These cancer-associated HPV types are designated as high-risk HPV (hr-HPV) types. The infection with the HPV hr-types can lead to development of cancer of the cervix, vulva, vagina, anus, or penis. The majority of malignant cervical carcinomas (approx. 70%) occur as a result of infections with HPV types 16 or 18.

References

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Probe Description

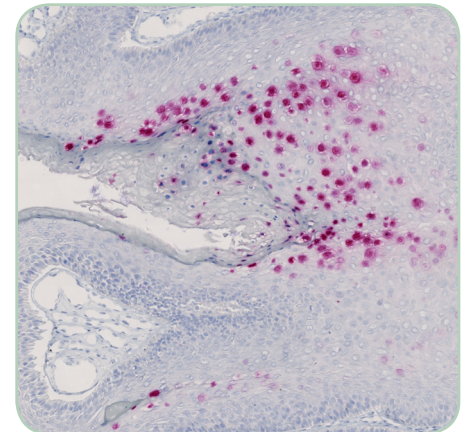
ZytoFast® HPV specific probes are directed against DNA sequences which encode the HPV proteins E6, E7 and/or L1. The probes consist of HPV-type-specific oligonucleotides, Digoxigenin-labeled by using the unique ZytoFast® HighTag System providing improved signal intensity. In addition to the detection of HPV at the DNA level, HPV probes will also allow detection of E6, E7, and/or L1 RNAs, which are expressed during some stages of infection.



Schematic representation of the HPV genome with E and L open reading frames. Genomic regions targeted by ZytoFast® HPV specific oligonucleotides are indicated in blue.

Results

A positive reactivity for HPV DNA in epithelial cells is indicated by a distinctly stained nucleus. Due to the detection of HPV DNA as well as E6, E7, and/or L1 RNAs, depending on the infection stage, cytoplasmic staining might be observed additionally. Depending on the detection chemistry that is used, colored precipitates, which can be clearly distinguished from the background, will be dark violet-blue when using NBT/BCIP as substrate, dark brown when using DAB, or strong red when using Permanent Red.



HPV infected cervix tissue hybridized with the ZytoFast® HPV type 6/11 Probe, detected with the ZytoFast® PLUS CISH Implementation Kit AP-Permanent Red.

Digoxigenin-labeled

Prod. No.	Product	Tests* (Volume)
T-1055-400	ZytoFast HPV type 6/11 Probe CE IVD	40 (400 µl)
T-1056-400	ZytoFast HPV type 16/18 Probe CE IVD	40 (400 µl)
T-1057-400	ZytoFast HPV type 31/33 Probe CE IVD	40 (400 µl)
T-1140-400	ZytoFast HPV High-Risk (HR) Types Probe (specific for HPV type 16/18/31/33/35/39/45/51/52/56/58/59/66/68/82) CE IVD	40 (400 µl)
T-1144-400	ZytoFast HPV Screening Probe (specific for HPV type 6/11/16/18/31/33/35/39/45/51/52/56/58/59/66/68/82) CE IVD	40 (400 µl)
Related Products		
T-1061-40	ZytoFast PLUS CISH Implementation Kit AP-NBT/BCIP CE IVD Incl. DNA (+) Control Probe, 0.1 ml; DNA (-) Control Probe, 0.1 ml; 28S rRNA (+) Control Probe, 0.1 ml; RNA (-) Control Probe, 0.1 ml; Heat Pretreatment Solution EDTA, 500 ml; Pepsin Solution, 4 ml; 20x Wash Buffer TBS, 4x50 ml; Rabbit-anti-DIG, 4 ml; Anti-Rabbit-AP-Polymer, 4 ml; NBT/BCIP Solution, 4ml; Nuclear Red Solution, 20 ml; Mounting Solution (alcoholic), 4 ml	40
T-1063-40	ZytoFast PLUS CISH Implementation Kit HRP-DAB CE IVD Incl. DNA (+) Control Probe, 0.1 ml; DNA (-) Control Probe, 0.1 ml; 28S rRNA (+) Control Probe, 0.1 ml; RNA (-) Control Probe, 0.1 ml; Heat Pretreatment Solution EDTA, 500 ml; Pepsin Solution, 4 ml; 20x Wash Buffer TBS, 4x 50 ml; Mouse-anti-DIG, 4 ml; Anti-Mouse-HRP-Polymer, 4 ml; DAB Solution A, 0.3 ml; DAB Solution B, 10 ml; Nuclear Blue Solution, 20 ml; Mounting Solution (alcoholic), 4 ml	40
T-1151-40	ZytoFast PLUS CISH Implementation Kit AP-Permanent Red CE IVD Incl. DNA (+) Control Probe, 0.1 ml; DNA (-) Control Probe, 0.1 ml; 28S rRNA (+) Control Probe, 0.1 ml; RNA (-) Control Probe, 0.1 ml; Heat Pretreatment Solution EDTA, 500 ml; Pepsin Solution, 4 ml; 20x Wash Buffer TBS, 4x50 ml; Rabbit-anti-DIG, 4 ml; Anti-Rabbit-AP-Polymer, 4 ml; Permanent Red Solution A, 0.25 ml; Permanent Red Solution B, 15 ml; Mayer's Hematoxylin Solution, 20 ml; Mounting Solution (alcoholic), 4 ml	40

* Using 10 µl probe solution per test. CE IVD only available in certain countries. All other countries research use only! Please contact your local dealer for more information.