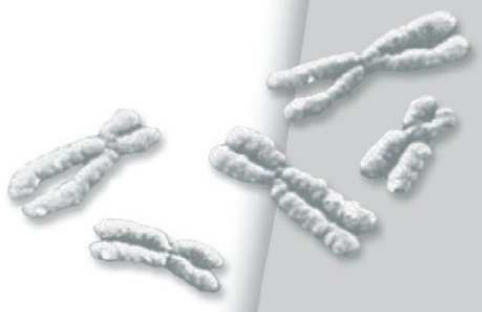
ZYTOVISION

Zyto*Fast*
HPV type 6/11/16/18/31/33/35 Screening Probe
(Biotin-labeled)

REF T-1044-400 Σ 40 (0.4 ml)

For the detection of Human Papilloma Virus (HPV)
type 6/11/16/18/31/33/35 DNA
by chromogenic *in situ* hybridization (CISH)

For research use only



Biotin-labeled oligonucleotide probe for the detection of Human Papilloma Virus (HPV) type 6/11/16/18/31/33/35 DNA by CISH, ready to use

Product Description

Content: Zyto*Fast* HPV type 6/11/16/18/31/33/35 Screening Probe **(PF21)** in hybridization buffer. The probe contains biotin-labeled oligonucleotides which target Human Papilloma Virus (HPV) type 6/11/16/18/31/33/35 DNA.

Product: T-1044-400: 0.4 ml (40 reactions of 10 µl each)

Specificity: The Zyto*Fast* HPV type 6/11/16/18/31/33/35 Screening Probe **(PF21)** is designed to be used for the detection of HPV type 6/11/16/18/31/33/35 DNA in formalin-fixed, paraffin-embedded tissue or cells by chromogenic *in situ* hybridization (CISH).

Storage/Stability: The Zyto*Fast* HPV type 6/11/16/18/31/33/35 Screening Probe **(PF21)** must be stored at 2...8°C and is stable through the expiry date printed on the label.

Use: This product is designed for research purposes only and not for use in diagnostic applications.

Safety Precautions: Read the operating instructions prior to use!

Do not use the reagents after the expiry date has been reached!

This product contains substances (in low concentrations and volumes) that are harmful to health. Avoid any direct contact with the reagents. Take appropriate protective measures (use disposable gloves, protective glasses, and lab garments)!

If reagents come into contact with skin, rinse skin immediately with copious quantities of water!

A material safety data sheet is available on request for the professional user!

Principle of the Method

The presence of certain nucleic acid sequences in cells or tissue can be detected by *in situ* hybridization using labeled DNA probes. The hybridization results in duplex formation of sequences present in the test object with the labeled DNA probe.

Duplex formation of the biotin-labeled probe with HPV type 6/11/16/18/31/33/35 DNA in the test material is indirectly detected by using enzyme-conjugated antibodies directed against biotin or unconjugated antibodies detected by a secondary polymerized enzyme-conjugated antibody. The enzymatic reaction of a chromogenic substrate leads to the formation of a color precipitate that is visualized by light microscopy.

Instructions

Pretreatment (dewaxing, proteolysis, post-fixation) should be carried out according to the needs of the user.

Bring probe to hybridization temperature before use.

Denaturation and hybridization of probe:

1. Vortex the Zyto*Fast* HPV type 6/11/16/18/31/33/35 Screening Probe **(PF21)** and pipette 10 µl each onto individual samples

Distribute dropwise on the whole target area to avoid local concentration of probe. Alternatively, add probe to the center of a coverslip and place it upside down on target area.

2. Avoiding trapped bubbles, cover the samples with a coverslip (22 mm x 22 mm). Seal the coverslip, e.g. with a layer of hot glue from an adhesive pistol or with rubber cement

3. Denature the slides at 75°C for 5 min, e.g. on a hot plate

4. Transfer the slides to a humidity chamber and hybridize for 60 min at 37°C (e.g. in a hybridization oven)

It is essential that the tissue/cell samples do not dry out during the hybridization step.

Further processing, such as washing, detection, and counterstaining, can be completed according to the user's needs. For a particularly user-friendly performance, we recommend the use of a Zyto*Fast* CISH system by ZytoVision. These systems were also used for the confirmation of appropriateness of the Zyto*Fast* HPV type 6/11/16/18/31/33/35 Screening Probe **(PF21)**.

Results

Depending on the detection system that is used, colored precipitates, which can be clearly distinguished from the background, will be observed within the cells targeted by the Zyto*Fast* HPV type 6/11/16/18/31/33/35 Screening Probe **(PF21)**. For more information please refer to the package insert accompanying the detection system.

A positive reactivity for HPV type 6/11/16/18/31/33/35 DNA in epithelial cells is indicated by a distinctly stained nucleus.

Visualization of signals should be performed by light microscopy using a 10x or 20x objective. For signal evaluation, necrotic, degenerated or over-digested cells should be avoided as these cells often stain nonspecifically.

In order to judge the specificity of the hybridization signals and to confirm the correct performance of the method, any hybridization should be accompanied by controls. We recommend using at least one control sample containing both true positive and negative staining cells.

Our experts are available to answer your questions.

Literature

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