



**Three Simple Steps:**



**Key Features:**

- Fully Automated – baking through final coverslip
- High capacity & High throughput system
- Fast turnaround
- Crisp, intense, reliable and reproducible stains
- Ability to optimize protocols for customized intensity
- Eco-friendly - up to 75% reduced
  - Reagent consumption
  - Waste generation
- Easy inventory management with RFID driven system
- Reports for inventory management and regulatory compliance

**In Situ Hybridization Probes**

**Ordering Information<sup>†</sup>**

Product Name (Pack size)	Cat. No. (Manual)	Cat. No. Automated	Product Name (Pack size)	Cat. No. (Manual)	Cat. No. Automated
Alu II Probe	PR028-100	PR028-YAD	MYC	PR265-100	PR265-YAD
Beta Actin	PR1055-100	PR1055-YAD	TNF	PR266-100	PR266-YAD
CerviPro HPV 14	PR251-100	PR251-YAD	TTF1	PR267-100	PR267-YAD
CerviPro HPV Type 16/18	PR260-100	PR260-YAD	ALK	PR269-100	PR269-YAD
EBER Probe	PR205-100	PR205-YAD	BRC42	PR268-100	PR268-YAD
Kappa Probe	PR214-100	PR214-YAD	CD58	PR270-100	PR270-YAD
Lambda Probe	PR215-100	PR215-YAD	PCNA	PR271-100	PR271-YAD
Oligo d (T) Probe	PR217-100	PR217-YAD	MPO	PR272-100	PR272-YAD
Retinoblastoma (RB) Probe	PR225-100	PR225-YAD	MRC1	PR273-100	PR273-YAD
ABL1	PR261-100	PR261-YAD	ARG1	PR274-100	PR274-YAD
BCL2	PR262-100	PR262-YAD	ARG2	PR275-100	PR275-YAD
BRAF	PR263-100	PR263-YAD	COL1A1	PR276-100	PR276-YAD
JAK2	PR264-100	PR264-YAD	SERPINE1	PR277-100	PR277-YAD

ISH Detection Kit	Pack Size	Staining	Cat. No.
XISH One-Step Polymer-HRP ISH Detection Kit	50 Slides	Automated (Xmatrix)	DF400-YAD
Super Sensitive One-Step Polymer-HRP ISH Detection Kit	50 Slides	Manual	DF400-80K

ISH probes (Xmatrix): For research use only. Not for use in diagnostic procedures.  
ISH probes (Manual): Analyte Specific Reagent. Analytical and performance characteristics are not established.



**Xmatrix<sup>®</sup>ELITE**  
Microtome to Microscope

Xmatrix<sup>®</sup> ELITE assures accurate reagent dispensing by using liquid level sensor, even distribution of reagents on the specimen and up to 75% reduced reagent consumption via coverslip micro-chamber, precise temperature control on each slide by eXACT™ and eliminates cross contamination through the use of disposable pipette tips.

Xmatrix<sup>®</sup> ELITE maximizes the testing capacity, minimizes hands-on time, reduces errors and produces consistent and accurate results. This under-scores our commitment to provide a system to meet the needs of the molecular pathology laboratory of today, tomorrow and beyond...

**Contact Information:**

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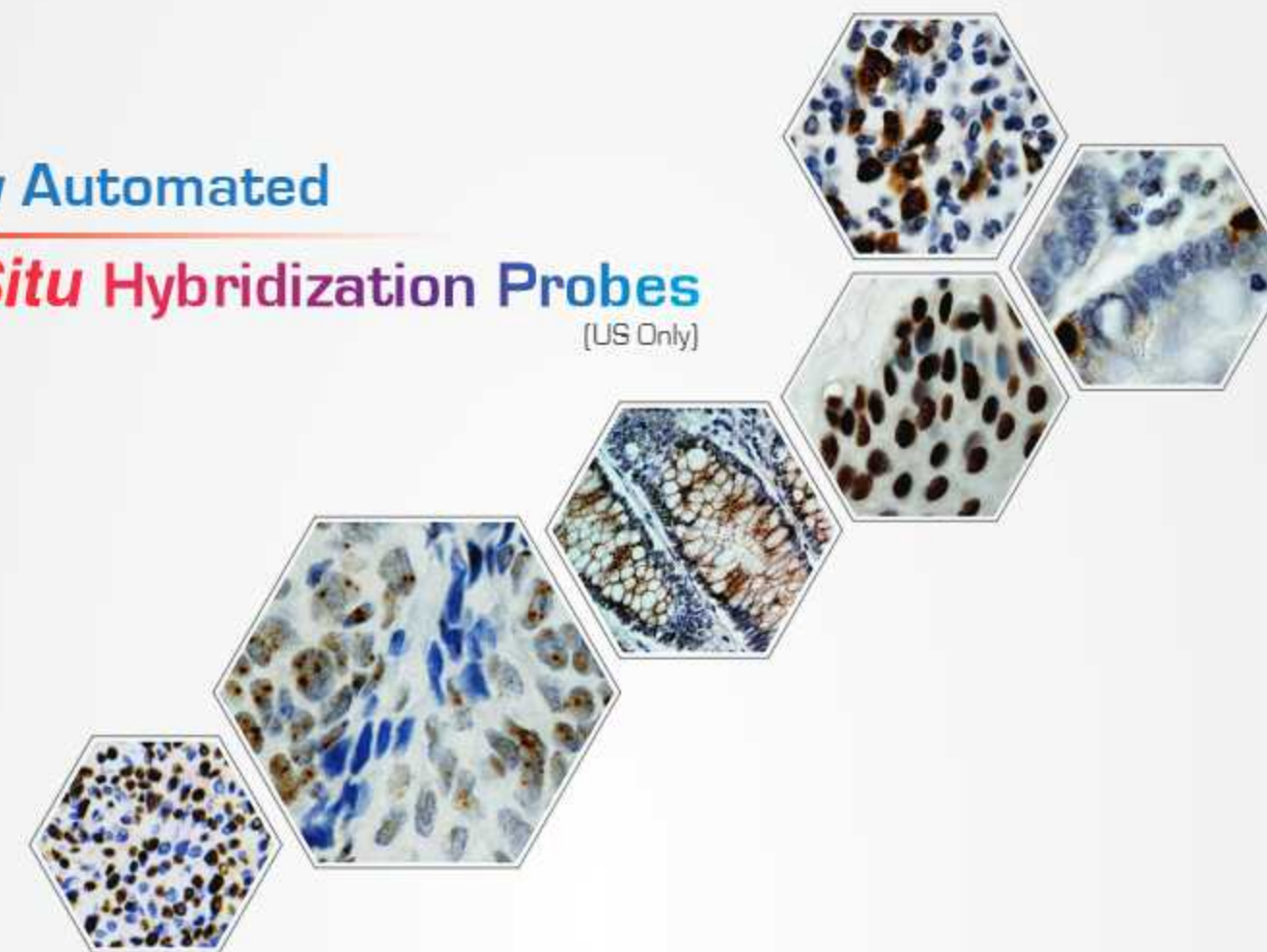
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**NEW**

**Fully Automated**  
**In Situ Hybridization Probes**  
(US Only)



**Highly Specific for DNA and RNA Targets**  
**Complementary with BioGenex ISH Detection Kits**  
**HPV 16/18, Kappa, Lambda, EBER, RB1 and ...**

## In Situ Hybridization Probes

BioGenex *in situ* hybridization (ISH) probes, detection kits and ancillaries are the components of an integrated system that works synergistically for the sensitive, reliable and easy-to-perform detection of specific DNA and RNA sequences in routine FFPE sections and in some cases cell smears. The detection is based on chromogenic *in situ* hybridization (CISH) which enables the user to gain genetic information in the context of tissue morphology.



### Alu II

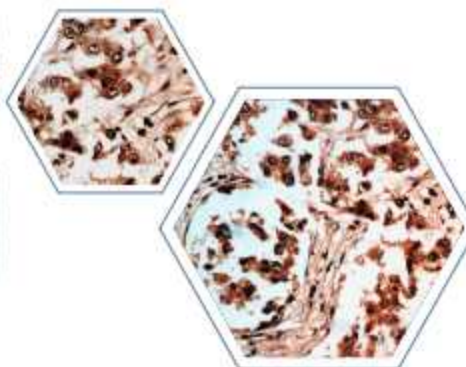
Alu, an important group of widely distributed sequences repeated in the human genome, has been widely used in *in situ* hybridization technique.

**Catalog No.:** PR026-YAD [Xmatrix], PR026-100 [Manual]  
**Images:** Alu II DNA staining of skin cancer tissue

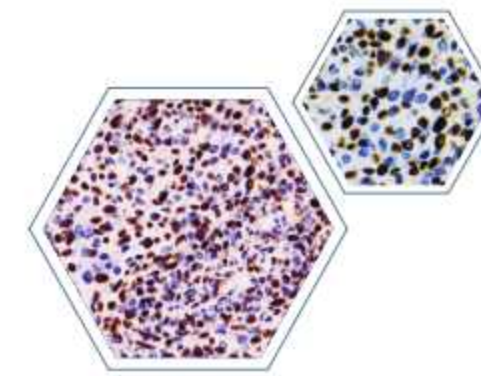
### Beta-Actin

Actins are highly conserved proteins that participate in cell motility as well as cell structure and integrity. In normal cells, beta-actin mRNA is localized in cell protrusions where actin is actively polymerized.

**Catalog No.:** PR1055-YAD [Xmatrix], PR1055-100 [Manual]  
**Images:** Beta actin mRNA staining of breast cancer tissue



## In Situ Hybridization Probes



### CerviPro HPV 14

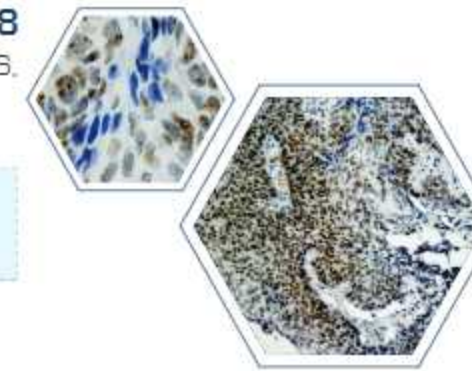
The CerviPro HPV 14-probe cocktail recognizes the regions of the L1 and E6/E7 open reading frames of 14 human papillomavirus (HPV) genotypes [16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68].

**Catalog No.:** PR251-YAD [Xmatrix], PR251-100 [Manual]  
**Images:** HPV 14-genotype DNA staining of cervical carcinoma tissue.

### CerviPro HPV Type 16/18

The CerviPro HPV Type 16/18 DNA probe recognizes the regions of the E1, E6, L1, and L2 open reading frames of human papillomavirus (HPV) genotypes.

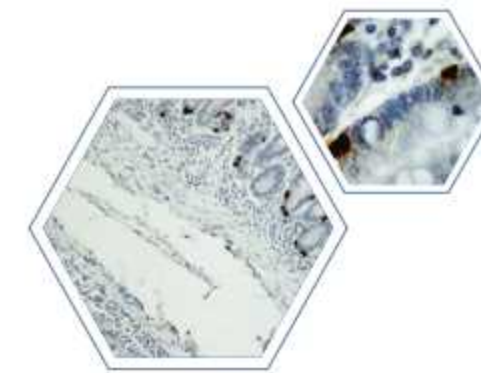
**Catalog No.:** PR250-YAD [Xmatrix], PR250-100 [Manual]  
**Images:** HPV type 16/18 DNA staining of cervical carcinoma tissue



### Cyclin D1

Cyclin D1 is a G1 phase cyclin which regulates G1 phase progression and G1/S transition of the cell cycle.

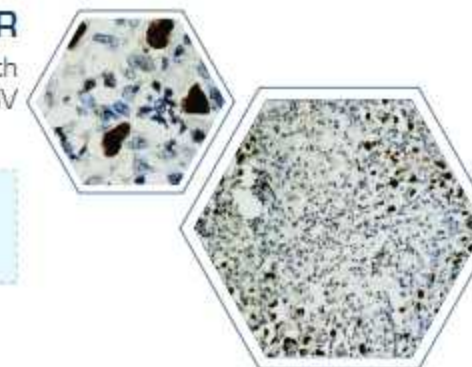
**Catalog No.:** PR216-YAD [Xmatrix], PR216-100 [Manual]  
**Images:** Cyclin D1 RNA staining of small intestinal cancer tissue



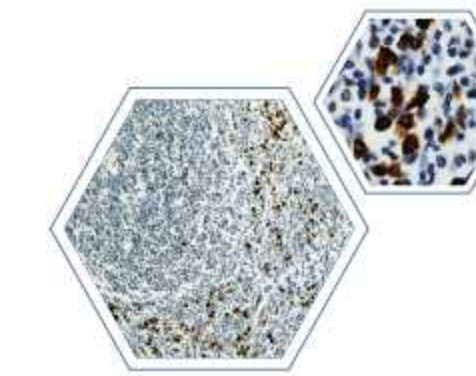
### EBER

Epstein-Barr virus-encoded RNA (EBER) is present in cells latently infected with Epstein-Barr virus (EBV) which is also known as human herpes virus 4. EBV infects B cells of the immune system and epithelial cells.

**Catalog No.:** PR205-YAD [Xmatrix], PR205-100 [Manual]  
**Images:** EBV-encoded RNA staining of Hodgkin lymphoma tissue



## In Situ Hybridization Probes



### Kappa

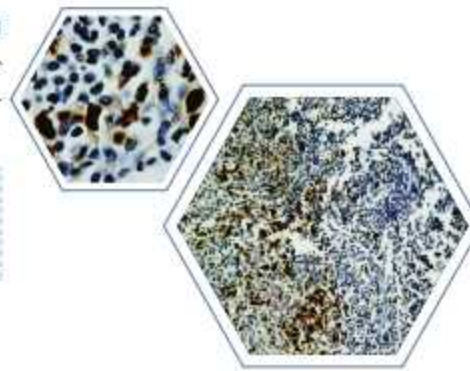
A given immunoglobulin molecule contains two identical light chains, either kappa or lambda. The clonal nature of any immunoglobulin producing cell population can be determined by the light chain structure of the immunoglobulin.

**Catalog No.:** PR214-YAD [Xmatrix], PR214-100 [Manual]  
**Images:** Kappa light chain mRNA staining of tonsil

### Lambda

A given immunoglobulin molecule contains two identical light chains, either kappa or lambda. The clonal nature of any immunoglobulin producing cell population can be determined by the light chain structure of the immunoglobulin.

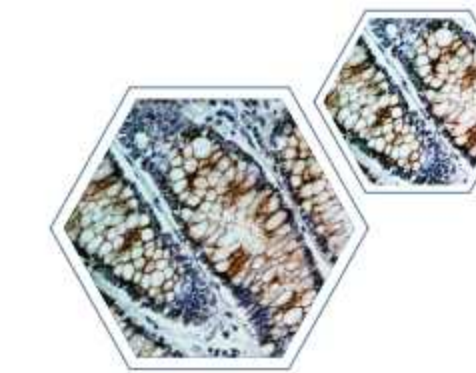
**Catalog No.:** PR215-YAD [Xmatrix], PR215-100 [Manual]  
**Images:** Lambda light chain mRNA staining of tonsil



### Oligo(dT)

Transport of mRNA from the nucleus to the cytoplasm is an essential process for gene expression in eukaryotic cells. *in situ* hybridization by an oligo(dT) probe is a method of localizing and detecting poly(A)<sub>n</sub> mRNA sequence and is commonly used to assess the preservation of mRNA in FFPE tissues.

**Catalog No.:** PR217-YAD [Xmatrix], PR217-100 [Manual]  
**Images:** Preservation of oligo(dT) mRNA staining of colon cancer tissue



### Retinoblastoma

The retinoblastoma tumor suppressor gene (RB1) encodes a protein of 110 kD that plays an important role in cell growth regulation. Hundreds of mutations in the RB1 gene have been identified.

**Catalog No.:** PR225-YAD [Xmatrix], PR225-100 [Manual]  
**Images:** RB mRNA staining of adenocarcinoma tissue

