

# *RISH*<sup>TM</sup>

*in situ hybridization simplified*



Rapid

Accessible

Simple



# RISH<sup>TM</sup>

A simple *in situ* hybridization technology using proprietary DNA probes for rapid visualization of mRNA target expression.

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- ▶ **Rapid** – Results in approximately 2.5 hours

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  - ▶ **Simple Procedure** – 5 step protocol is as simple as IHC

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  - ▶ **Sensitive** – Proprietary DNA technology designed for enhanced sensitivity & specificity

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  - ▶ **Easy** – Simultaneously evaluate gene expression and tissue morphology

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  - ▶ **Archivable** – Chromogenic signal is stable for extended storage

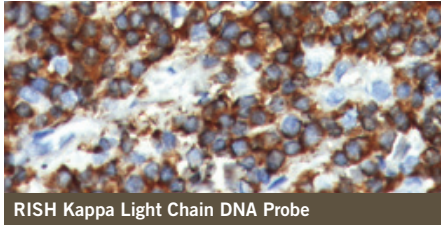
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The RISH probe technology, enables extremely stable hybridization with the mRNA target, resulting in a more abundant signal and conferring highly specific staining.

The protocol has been simplified by removal of the overnight hybridization, requirement for RNase free solutions, labware and harsh stringent wash conditions resulting in a procedure that is completed in approximately 2.5 hours.

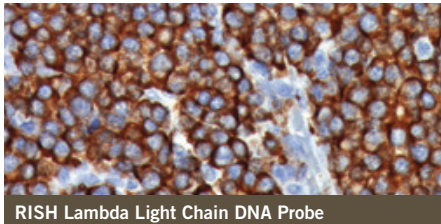
The result is clear, with virtually no background; the chromogenic signal is easily visualized under brightfield microscopy, along with the tissue morphology on a single slide.

# *in situ hybridization simplified*



RISH Kappa Light Chain DNA Probe

Staining bone marrow plasma cell myeloma



RISH Lambda Light Chain DNA Probe

Staining bone marrow myeloma of the neck

## **Kappa and Lambda RISH**

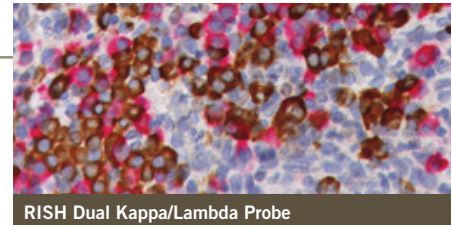
*Immunoglobulin Light Chains*

- ▶ Differentiate immunoblastic reactions related to viral infections, such as mononucleosis, from lymphoid tumors
- ▶ Used in the study of monoclonality of lymphoid tumors, lymphoproliferative syndromes, myelomas and immunodeficiency associated lymphoproliferative syndromes
- ▶ Diagnose mono- or polyclonality in lymphoid tumor proliferation or reactive processes

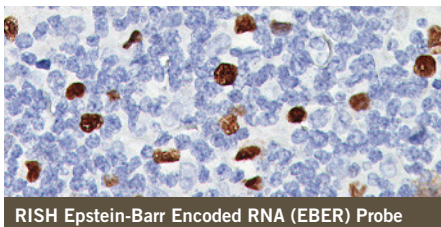
## **Dual Kappa / Lambda RISH**

- ▶ The Multiplex Dual Kappa-Lambda probe set enables simultaneous evaluation of immunoglobulin light chain ratios in one tissue section

Staining polyclonal plasma cells (K: brown, L: red) surrounding nests of basal cell carcinoma in the skin



RISH Dual Kappa/Lambda Probe



RISH Epstein-Barr Encoded RNA (EBER) Probe

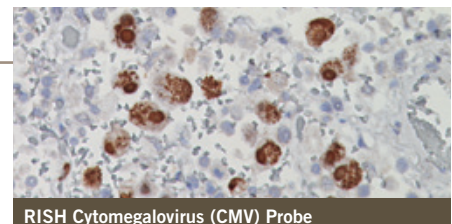
Staining Hodgkin's Lymphoma

## **EBER RISH** (*Epstein-Barr virus Encoded RNA*)

- ▶ Detects Epstein-Barr Virus in Reed-Sternberg (RS) Cells
- ▶ Used to diagnose nasopharyngeal carcinoma
- ▶ Used to diagnose infectious mononucleosis, lymphoid and non-lymphoid tumors associated with Epstein-Barr viral infection

## **CMV RISH** (*Cytomegalovirus*)

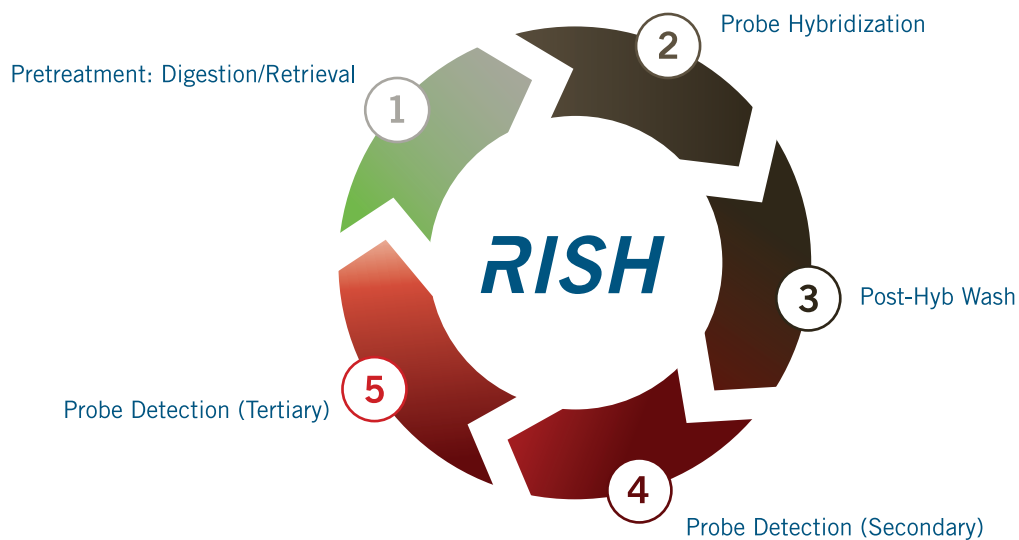
- ▶ Detects CMV genomic DNA & mRNA in infected tissues or cells
- ▶ CMV is a member of the human herpes virus-5 (HHV-5) group transmitted in breast milk, during organ transplantation, sexual activity or blood transfusions



RISH Cytomegalovirus (CMV) Probe

Staining CMV infected lung cells

# Protocol Overview



## RISH™ Detection Kit Components

RISH™ Detection Kit	Volume
RISHzyme™ Buffer	6 ml
RISHzyme	6 ml
RISH Secondary Reagent	6 ml
RISH Tertiary Reagent	6 ml
Betazoid DAB (Diaminobenzidine) Chromogen	0.25 ml
Betazoid DAB Buffer	6 ml
DAB Sparkle	6 ml

\* RISH Dual Detection Kit includes Vulcan Fast Red chromogen, buffer & additional mixing vial

## Ordering Information

Product Name	Status	Cat. No.	Volume
RISH Epstein-Barr Encoded RNA (EBER) Probe	ASR, RUO	RI0001 T	0.4 ml
RISH Kappa Light Chain DNA Probe	ASR, RUO	RI0004 T	0.4 ml
RISH Lambda Light Chain DNA Probe	ASR, RUO	RI0005 T	0.4 ml
RISH Cytomegalovirus (CMV) Probe	ASR, RUO	RI0011 T	0.4 ml
RISH Dual Kappa/Lambda Probe	RUO	RI0027 T	0.4 ml
RISH Retrieval, 10X	IVD	RI0209 M	500 ml
RISH Detection Kit	IVD	RI0207 KG	
RISH Dual Detection Kit	IVD	RI0208 KG	

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