

# MACH

Micro-Polymer Detection



## MACH Micro-Polymer Detection

Biocare's micro-polymer detection systems feature a compact molecular design; reducing steric hindrance and enabling crisp, intense staining patterns – even in nuclei and other sub-cellular structures for human tissues. The combination of improved polymer access with a signal enhancing secondary enables the use of higher primary antibody titers, reducing laboratory costs with every slide.

- ▶ Biotin-free micro-polymer technology
- ▶ Superior antigen access
- ▶ Unsurpassed specificity and sensitivity
- ▶ Greater primary antibody dilutions
- ▶ Minimal background staining
- ▶ Universal & species specific systems

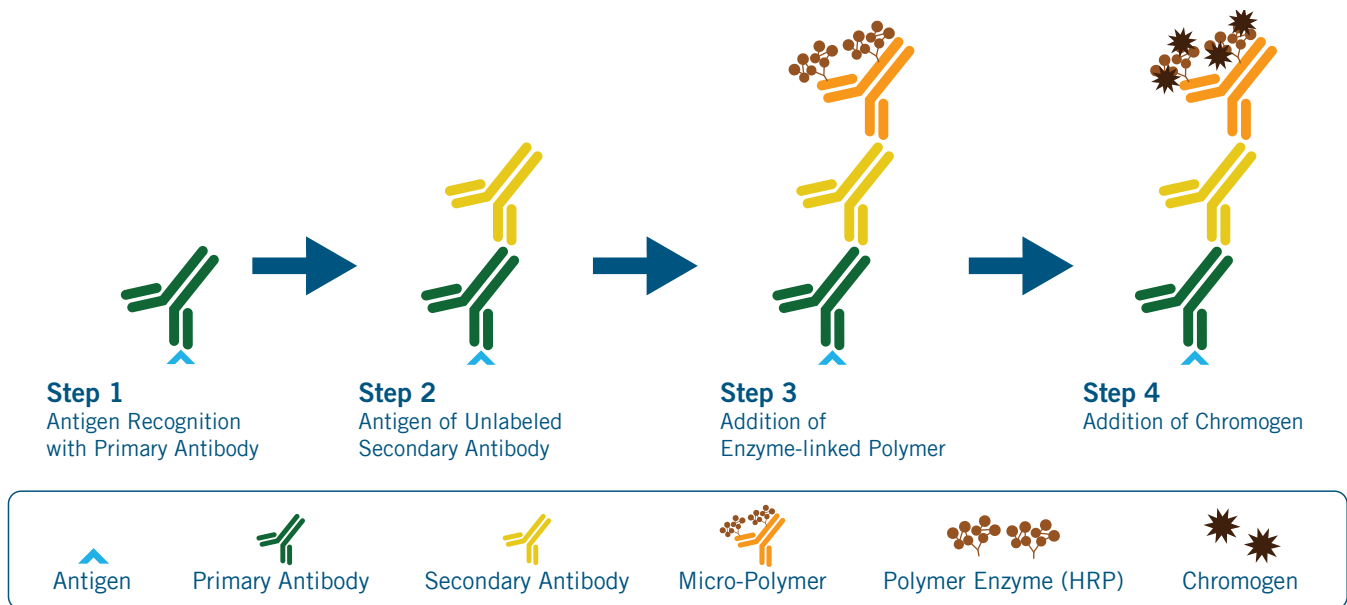
# MACH Micro-Polymer Detection

Biocare's micro-polymer detection systems feature a compact molecular design; reducing steric hindrance and enabling crisp, intense staining patterns – even in nuclei and other sub-cellular structures for human tissues. In the MACH 3 and MACH 4 detection systems, the use of an unlabeled secondary amplifies the signal from each antigen recognition event - increasing the sensitivity of the primary antibody.

## MACH Micro-polymer Advantages

- ▶ The combination of improved polymer access with a signal enhancing secondary enables the use of higher primary antibody titers, reducing laboratory costs with every slide.
- ▶ The MACH micro-polymer system has a simplified workflow, excellent specificity and enhanced sensitivity on mouse and rabbit antibodies.

## MACH Micro-polymer Diagram

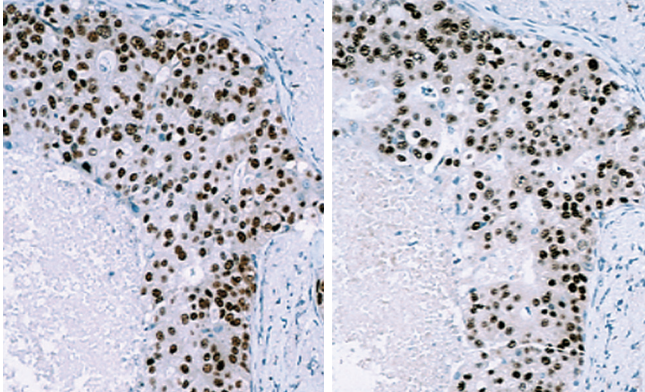


## Detection System Comparison

Detection	intelliPATH™	MACH 4™	MACH 3™	MACH 2™	ONCORE Pro
Primary Antibody	Universal for Mouse and Rabbit	Universal for Mouse and Rabbit	Mouse or Rabbit	Universal, Mouse or Rabbit	Mouse or Rabbit
Technology	Two-step Micro-polymer	Two-step Micro-polymer	Two-step Micro-polymer	One-step Micro-polymer	One-step Micro-polymer
Sensitivity	++++ (mouse) ++ (rabbit)	++++ (mouse) ++ (rabbit)	+++	++	++
Antibody Dilution	1:300-1:400 (mouse) 1:50-1:100 (rabbit)	1:300-1:400 (mouse) 1:50-1:100 (rabbit)	1:100-1:200	1:50-1:100	1:50-1:100

# Understanding MACH Detection

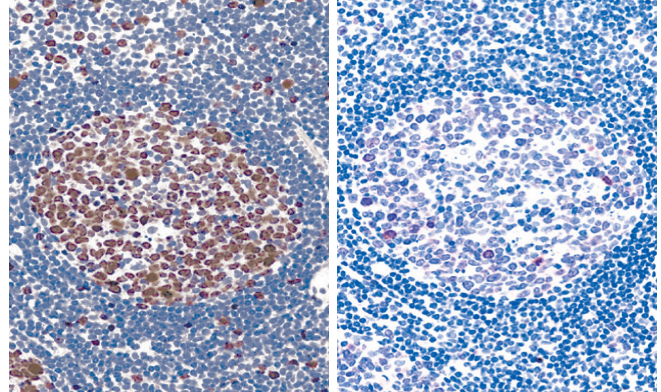
## MACH 4™ - Superior Antibody Dilutions



MACH 4, 1:1000 dilution ER [1D5]      Envision+, 1:25 dilution ER [1D5]

MACH 4 is a universal detection ideal for use with mouse or rabbit antibody solutions. Its increased sensitivity enables a significantly higher dilution of concentrated antibodies.

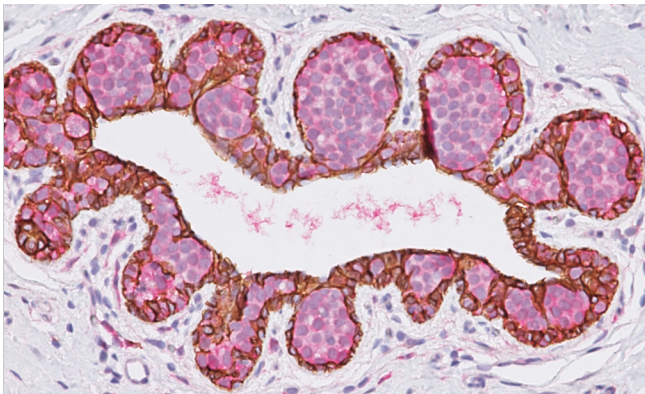
## MACH 3™ - High Sensitivity, Low Background



MACH 3, 1:200 dilution Ki-67      Envision+, 1:200 dilution Ki-67

MACH 3 is a two-step, biotin-free detection which provides excellent specificity and sensitivity. Use of a species specific detection may provide lower background than a universal system.

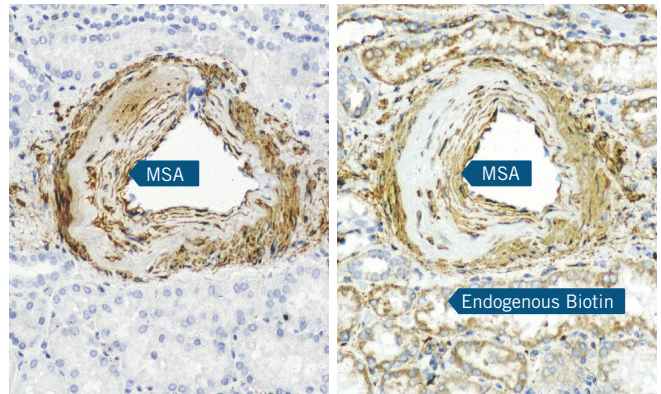
## MACH 2 Double Stain - Simultaneous Multiplex



Lobular carcinoma *in situ*, p120 + E-cadherin

MACH 2 Double Stain is an innovative detection consisting of HRP and AP enzymes in a single solution. With no probe or biotin blocking required, a one-step polymer eliminates biotin background staining while shortening protocol time.

## MACH 2™ - Simple, Clean & Efficient



MACH 2, MSA

ABC System, MSA

MACH 2 detection consists of an enzyme-linked polymer that is applied directly after the primary antibody. With no probe or Avidin/Biotin blocking required, MACH 2 eliminates endogenous biotin, shortens protocol time, and decreases reagent use.

## intelliPATH™ & ONCORE Pro - Optimized for Automation

Designed and optimized for the intelliPATH and ONCORE Pro automated staining instruments, these detection reagents provide the strongest universal detection for mouse and rabbit primary antibodies. For multiplexed antibodies, simultaneous double stain detection is also available.

# MACH Micro-polymer Detection

Product Name	Detection	Antibody	Enzyme	Cat. No.
MACH 4™ Universal HRP-Polymer	MACH 4™	Mouse or Rabbit	HRP	M4U534 G, H, L, MM, G80
MACH 4™ Universal AP-Polymer	MACH 4™	Mouse or Rabbit	AP	M4U536 G, H, L, G20
MACH 3™ Mouse HRP-Polymer	MACH 3™	Mouse	HRP	M3M530 G, H, L
MACH 3™ Mouse AP-Polymer	MACH 3™	Mouse	AP	M3M532 G, H, L
MACH 3™ Rabbit HRP-Polymer	MACH 3™	Rabbit	HRP	M3R531 G, H, L
MACH 3™ Rabbit AP-Polymer	MACH 3™	Rabbit	AP	M3R533 G, H, L
MACH 2 Double Stain 1	MACH 2 Double Stain	Mouse & Rabbit	AP (mouse) & HRP (rabbit)	MRCT523 G, H, L
MACH 2 Double Stain 2	MACH 2 Double Stain	Mouse & Rabbit	HRP (mouse) & AP (rabbit)	MRCT525 G, H, L
MACH 2™ Universal HRP-Polymer	MACH 2™	Mouse or Rabbit	HRP	M2U522 G, H, L
MACH 2™ Mouse HRP-Polymer	MACH 2™	Mouse	HRP	MHRP520 G, H, L, MM
MACH 2™ Mouse AP-Polymer	MACH 2™	Mouse	AP	MALP521 G, H, L
MACH 2™ Rabbit HRP-Polymer	MACH 2™	Rabbit	HRP	RHRP520 G, H, L, MM
MACH 2™ Rabbit AP-Polymer	MACH 2™	Rabbit	AP	RALP525 G, H, L

## intelliPATH™

Product Name	Antibody	Enzyme	Cat. No.
intelliPATH™ Universal HRP Detection	Mouse or Rabbit	HRP	IPK5011 G80
intelliPATH™ Multiplex Secondary Reagent 2	Mouse & Rabbit	HRP (mouse) & AP (rabbit)	IPSC5004 G20, G80

HRP = Horseradish Peroxidase    AP = Alkaline Phosphatase

## ONCORE Pro

Product Name	Antibody	Enzyme	Cat. No.
Mouse HRP Detection	Mouse	HRP	OPRI 6007 T60
Mouse AMP HRP Detection	Mouse	HRP	OPRI 6050 T60
Rabbit HRP Detection	Rabbit	HRP	OPRI 6008 T60
Mouse AP Detection	Mouse	AP	OPRI 6044 T60
Rabbit AP Detection	Rabbit	AP	OPRI 6043 T60
Multiplex Detection 2	Mouse & Rabbit	HRP (Mouse) & AP (Rabbit)	OPRI 6045 T60

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