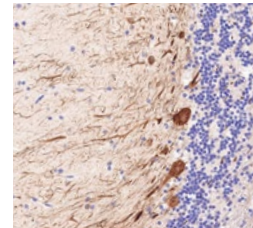
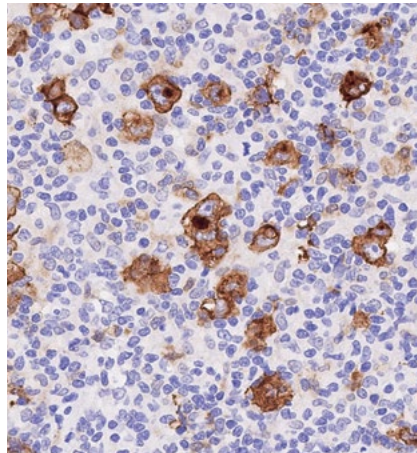
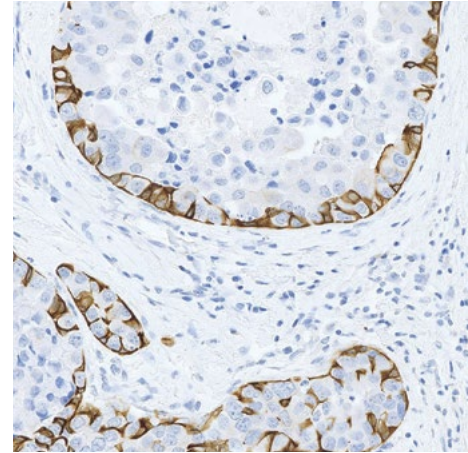
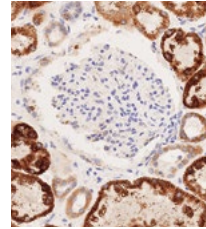


Advancing Cancer Diagnostics  
Improving Lives



## Novocastra HD Highly Definitive Antibodies

<b>HN</b> Head & Neck Pathology	<b>Ga</b> Gastrointestinal Pathology	<b>Br</b> Breast Pathology	<b>Gy</b> Gynecopathology	<b>Pu</b> Pulmonary Pathology
<b>Ur</b> Uropathology	<b>De</b> Dermatopathology	<b>Ne</b> Neuropathology	<b>ST</b> Soft Tissue Pathology	<b>He</b> Hematopathology

**Independently Evaluated\***  
**For Results You Can Depend On**

\*Independent analysis commissioned by Leica Biosystems and conducted by NordiQC according to the manufacturers' instructions for use and on the corresponding staining platform.

# Put Our Antibodies to the Test

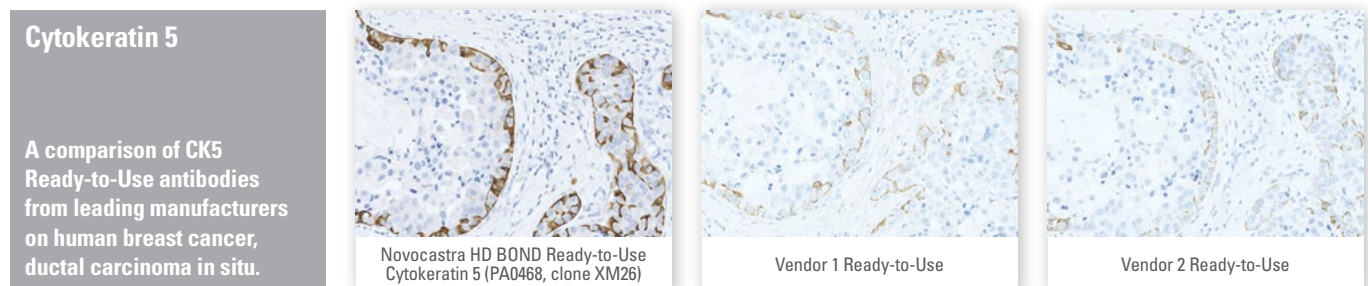


## Introducing Novocastra HD - independently qualified\* staining quality, for results you can depend on.

Choose externally qualified performance for results you can trust. An independent analysis by external QA\*, NordiQC, demonstrated that antibodies for the same biomarker can have varying levels of staining performance, even for the same clone.



BOND system, using BOND Ready-to-Use Bcl-6, demonstrates high quality staining when compared directly to Ready-to-Use antibodies from other leading manufacturers, on serially cut sections of human tonsil. Images supplied by NordiQC.



BOND system, using BOND Ready-to-Use Cytokeratin 5, demonstrates high quality staining when compared directly to Ready-to-Use antibodies from other leading manufacturers on serially cut sections of human breast cancer; ductal carcinoma in situ. Images supplied by NordiQC.

## Trust the 'HD' Difference

Highly Definitive Antibodies for Diagnostic Confidence.

# Independently Evaluated\* Specifically Selected

Each antibody in the range has been independently evaluated\* by external QA, NordiQC, in comparison with equivalent products from other vendors. The range represents the highest performing antibodies that Leica Biosystems offers for the most commonly performed IHC tests.



**Quickly and confidently select the most important IHC antibodies for diagnosis.**

With an ever increasing choice of antibodies in the market, selecting antibodies that deliver the performance you demand is not always straightforward. Leica Biosystems introduces Novocastra HD – a menu of clinically important antibodies that you can trust.



**Improve efficiency and streamline validation, with antibodies optimized for workflow.**

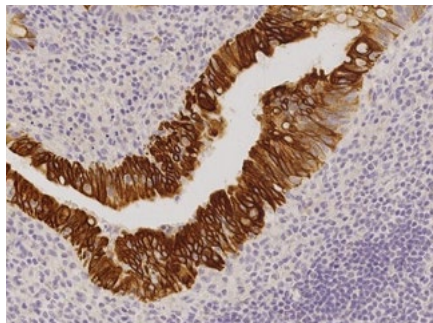
Spanning 10 diagnostic pathologies and in a range of formats and sizes, Leica Biosystems offers a comprehensive menu of antibodies for the most commonly performed IHC tests and anatomical pathologies.



**Choose externally qualified\* antibodies for BOND, for results you can depend on.**

The end to end solution provided by Novocastra HD BOND Ready-to-Use, in combination with the BOND platform, reagents and detection, is fully validated and independently evaluated\* by external QA, delivering results you can trust, for confidence in diagnosis.

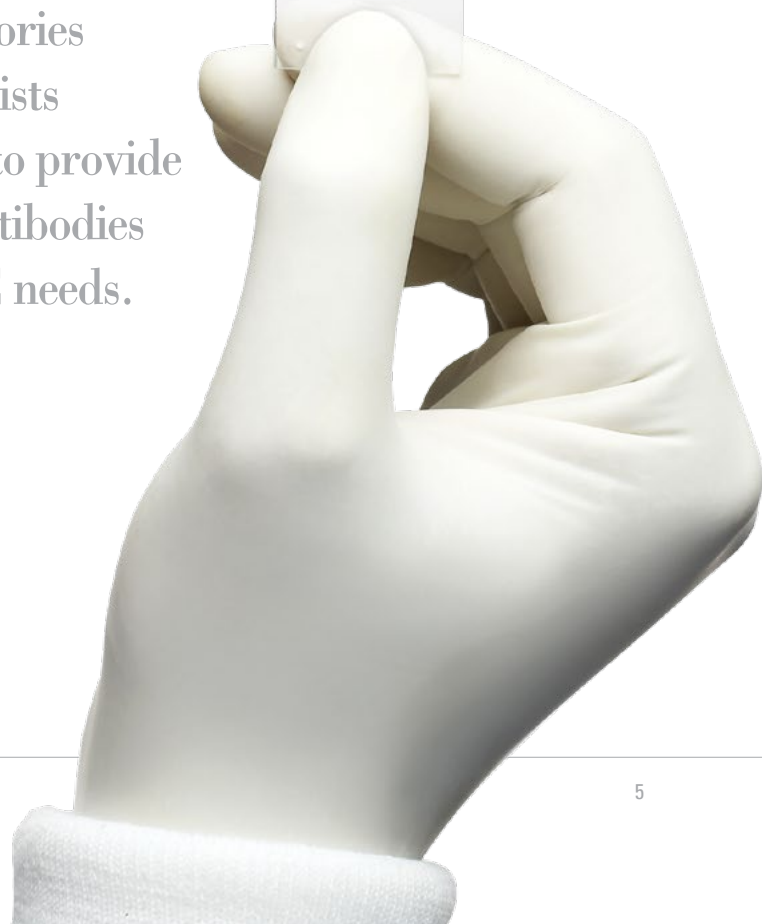




Choose clinical antibodies with broad application to streamline inventory.

Within any specific pathology, each antibody has been independently tested\* on a range of relevant tissues. Not only does it have demonstrable quality within that field of pathology, it also performs to a high standard across a range of relevant pathologies, meeting your laboratory need for product flexibility.

We analyzed over 80,000 points of data from laboratories and pathologists world-wide, to provide a range of antibodies for your IHC needs.



## Diagnostic Confidence

# Supporting Optimal Patient Care

Deliver high quality, reliable staining for accurate diagnosis that supports optimal patient care. Novocastra HD antibodies represent the highest level of performance from Leica Biosystems, for the most clinically relevant IHC antibodies. Optimized to deliver high-quality staining, for results you can trust.

**Pathologist qualified accuracy for diagnosis.**

An independent\*, head-to-head assessment, by NordiQC, of Novocastra HD products vs. leading equivalents, evaluated and qualified each antibody regarding staining quality and application for diagnostic use. Notable advantages in staining performance were observed on several occasions, sometimes even for the same clone. This reinforces the need to use a fully validated product range for clinical diagnosis.

**Selecting antibodies has been made easier with Novocastra HD.**

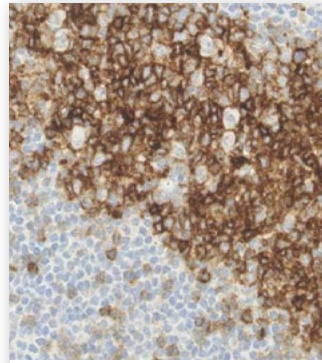
When consolidating your testing on BOND, or looking to bring new or replacement antibodies into service, Novocastra HD should be your first reference source. Evaluated for performance against other leading clones, Novocastra HD is a new trusted standard for antibodies that deliver high quality staining for your diagnostic confidence.



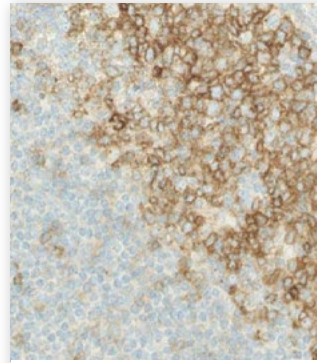


## CD10

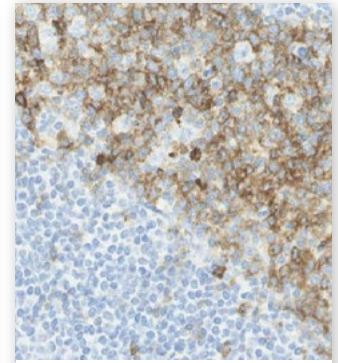
A comparison of CD10 Ready-to-Use antibodies from leading manufacturers on human tonsil.



Novocastra HD BOND Ready-to-Use CD10 (PA0270, clone 56C6)



Vendor 1 Ready-to-Use

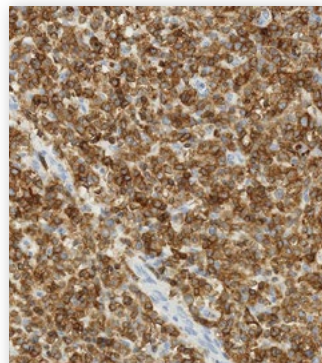


Vendor 2 Ready-to-Use

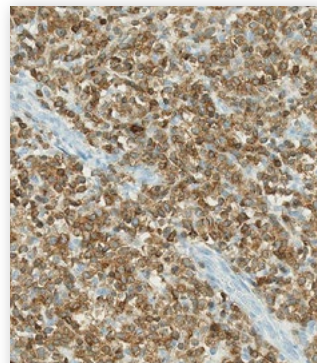
BOND system, using Novocastra HD BOND Ready-to-Use CD10, demonstrates high quality staining when compared directly to Ready-to-Use antibodies from other leading manufacturers on serially cut sections of human tonsil. Images supplied by NordiQC.

## CD3

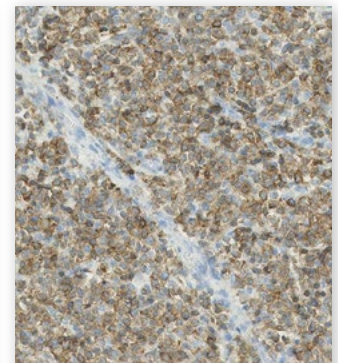
A comparison of CD3 liquid concentrated antibodies from leading manufacturers on human T cell lymphoma.



Novocastra HD Liquid Concentrate CD3 (NCL-L-CD3-565, clone LN10)



Vendor 1 Liquid Concentrate

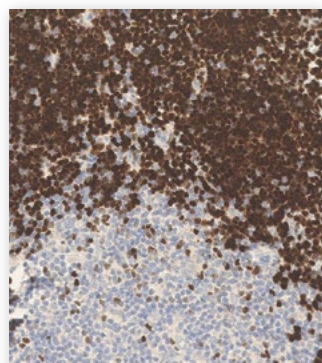


Vendor 2 Liquid Concentrate

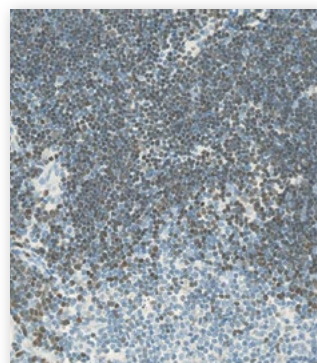
BOND system, using Novocastra HD liquid concentrate CD3, demonstrates high quality staining when compared directly to liquid concentrated CD3 antibodies from other leading manufacturers on serially cut sections of human T cell lymphoma. Images supplied by NordiQC.

## Terminal Deoxynucleotidyl Transferase (TdT)

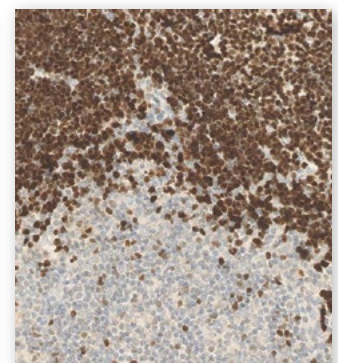
A comparison of Terminal Deoxynucleotidyl Transferase (TdT) Ready-to-Use antibodies from leading manufacturers on human thymus.



Novocastra HD BOND Ready-to-Use TdT (PA0339, clone SEN28)



Vendor 1 Ready-to-Use



Vendor 2 Ready-to-Use

BOND system, using Novocastra HD BOND Ready-to-Use TdT, demonstrates high quality staining when compared directly to Ready-to-Use antibodies from other leading manufacturers on serially cut sections of human thymus. Images supplied by NordiQC.

## Workflow Efficiency

# Improve Workflow Efficiency and Streamline Validation

### **Choose from an expanded range of products to improve your laboratory efficiency.**

Novocastra HD introduces a comprehensive range of formats and sizes of antibodies from Leica Biosystems, making it easy for you to align the right products to your case-load and format preferences. The Novocastra HD range includes an extended range of liquid concentrates, and BOND Ready-to-Use products optimized for use on the fully-automated BOND staining platforms.

### **Reduce waste and become cost efficient with new liquid concentrates.**

Match product volume to workflow and minimize time, resource and money spent on validation of lot changes. In addition, for less commonly performed tests, use of 0.5 mL or 1 mL volumes helps ensure complete product use before its expiration date.

### **Minimize validation time with larger BOND Ready-to-Use antibodies.**

Many high use Ready-to-Use antibodies are now available in two sizes: 7 mL (46 tests) and 30 mL size (200 tests). 30 mL BOND Ready-to-Use reduces the need for frequent container changes, reduces the validation time, tissue and additional reagent expense.

### **Choose formats aligned to your workflow.**

Whether you prefer the validation and ease of use offered by Ready-to-Use antibodies, or prefer the customization and flexibility of concentrated antibodies, all Novocastra HD antibodies are available in both formats.





## Streamline validation of lot changes with 30 mL BOND Ready-to-Use Antibodies

### Example:

BOND Ready-to-Use antibody

7 mL + 7 mL + 7 mL + 7 mL replaced by 30 mL

Validation slides

3 + 3 + 3 + 3 replaced by 3 **Saving 9 slides**

#### Benefits of Ready-to-Use antibodies for BOND

- ✓ Reduce usage of consumables and reagents
- ✓ Save time
- ✓ Conserve tissue
- ✓ Free-up instrument space

Whatever your workflow needs, now or in the future, there's a Novocastra HD product that will work for you.

#### Benefits of Ready-to-Use antibodies for BOND

- ✓ Optimized for staining performance on BOND
- ✓ Validated antibody concentrations
- ✓ Plug and play
- ✓ Standardized assay
- ✓ Eliminate variability in antibody preparation

#### Benefits of concentrated liquid antibodies

- ✓ Flexibility of use on various platforms<sup>1</sup>
- ✓ Adaptable to a variety of detection systems<sup>1</sup>
- ✓ Adjustable concentration to suit user's tissue<sup>1</sup>
- ✓ Economical option that retains confidence in clone selection

<sup>1</sup> The performance of antibodies should be validated when used with automated platforms or manual staining systems other than stated on Instructions for Use.

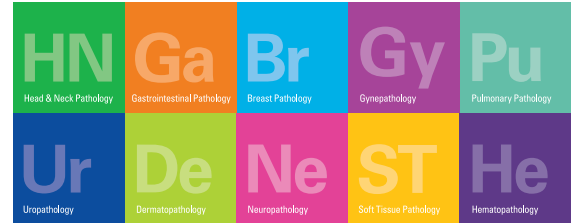
# Novocastra HD - By Pathology

## Highly Definitive Antibodies

The Novocastra HD range continues to expand across 10 diagnostic pathologies, delivering high quality reliable staining to support accurate diagnosis and optimal patient care. To stay up to date with new product launches, sign up at [LeicaBiosystems.com/NovocastraHD](http://LeicaBiosystems.com/NovocastraHD), or contact your local Leica Biosystems representative.

Antibody	Clone	BOND Ready-to-Use Product Code 7 mL	BOND Ready-to-Use Product Code 30 mL	Liquid Concentrate Product Code	0.5 mL	1 mL	2 mL	Br	HN	De	He	ST	Ne	Ur	Pu	Gy
Alpha-Methylacyl-CoA Racemase (AMACR, p504s) ●	EPMU1	PA0210		NCL-L-AMACR		x										
Anaplastic Lymphoma Kinase	5A4	PA0306		NCL-L-ALK	x											
Bcl-2 Oncoprotein	Bcl-2/100/D5	PA0117		NCL-L-bcl-2		x										
Bcl-6 Oncoprotein	LN22	PA0204		NCL-L-Bcl-6-564		x										
CA125 (OV185:1)	OV185:1	PA0539		NCL-L-CA125		x										
Calretinin	CAL6	PA0346		NCL-L-CALRET-566		x										
Carcinoembryonic Antigen (CD66e)	COL-1	PA0848		NCL-L-CEA-609		x										
CD1a	MTB1	PA0235		NCL-L-CD1a-235	x	x										
CD3	LN10	PA0553	PA0122	NCL-L-CD3-565		x										
CD4	4B12	PA0427		NCL-L-CD4-368	x	x										
CD5	4C7	PA0168		NCL-L-CD5-4C7	x	x										
CD7	LP15	PA0266		NCL-L-CD7-580		x										
CD8	4B11	PA0183		NCL-L-CD8-4B11	x											
CD10	56C6	PA0270	PA0131	NCL-L-CD10-270		x										
CD11c	5D11	PA0554		NCL-L-CD11c-563		x										
CD15	MMA	PA0473														
CD19	BT51E	PA0843		NCL-L-CD19	x	x										
CD20	L26	PA0200	PA0359	NCL-L-CD20-L26	x	x										
CD23	1B12	PA0169		NCL-L-CD23-1B12	x	x										
CD30	JCM182	PA0790		NCL-L-CD30		x										
CD31	JC70A	PA0414		NCL-L-CD31-607		x										
CD33	PWS44	PA0555		NCL-L-CD33		x										
CD34	QBEnd/10	PA0212	PA0354	NCL-L-END		x										
CD45	X16/99	PA0042		NCL-L-LCA	x	x										
CD56	CD564	PA0191		NCL-L-CD56-504		x										
CD68	514H12	PA0273		NCL-L-CD68		x										
CD79a	JCB117	PA0599														
CD99	PCB1			NCL-L-CD99-187		x										
CD117 (c-kit Oncoprotein)	EP10	PA0007		NCL-L-CD117-032		x										
CD138	MI15	PA0088														
CD163	10D6	PA0090		NCL-L-CD163		x										
CDX2	EP25	PA0375														
Chromogranin A	5H7	PA0515		NCL-L-CHROM-430		x										
Cyclin D1	EP12	PA0046														
Cytokeratin 5	XM26	PA0468		NCL-L-CK5	x	x										
Cytokeratin 7	RN7	PA0942	PA0138	NCL-L-CK7-560		x										
Cytokeratin 14	LL002	PA0074		NCL-L-LL002	x	x										

● Not available for sale in United States of America



All antibodies are independently benchmarked by external QA\* vs. leading equivalents. The range represents the highest performing antibodies that Leica Biosystems offers for the most commonly performed IHC tests. Available as concentrates or Ready-to-Use antibodies for BOND to meet your workflow needs. Use the table below to identify key pathologies and antibodies of interest.

Antibody	Clone	BOND Ready-to-Use Product Code 7 mL	BOND Ready-to-Use Product Code 30 mL	Liquid Concentrate Product Code	0.5 mL	1 mL	2 mL	Br	HN	De	He	ST	Ne	Ur	Pu	Gy
Cytokeratin 20	Ks20.8	PA0022	PA0037	NCL-L-CK20	x	x										
Desmin	DE-R-11	PA0032		NCL-L-DES-DERII		x										
DOG-1	K9	PA0219		NCL-L-DOG-1		x										
E-Cadherin	36B5	PA0387		NCL-L-E-Cad		x										
Estrogen Receptor	6F11	PA0151	PA0009	NCL-L-ER-6F11		x	x •									
Factor VIII related antigen (von Willebrand Factor)	36B11	PA0055		NCL-L-vWF		x										
Glial Fibrillary Acidic Protein	GA5	PA0026		NCL-L-GFAP-GA5		x										
Gross Cystic Disease Fluid Protein 15	23A3	PA0708		NCL-L-GCDFP15		x										
Immunoglobulin A	N1CLA			NCL-L-IgA		x										
Immunoglobulin D	DRN1C	PA0061 (He only)		NCL-L-IgD		x										
Immunoglobulin G	RWP49	PA0905		NCL-L-IgG		x										
Immunoglobulin M	8H6	PA0278		NCL-L-IgM		x										
Kappa Light Chain	CH15	PA0606 (He only)		NCL-L-KAP-581		x										
Ki67	MM1	PA0118	PA0410	NCL-L-Ki67-MM1		x										
Lambda Light Chain	SHL53	PA0570 (He only)		NCL-L-LAM-578		x										
Melan A	A103	PA0233	PA0044	NCL-L-MelanA		x										
Melanoma Marker	HMB45	PA0027	PA0625	NCL-L-HMB45		x										
Mismatch Repair Protein (MLH1)	ES05	PA0610		NCL-L-MLH1		x										
Mismatch Repair Protein (MSH2)	25D12			NCL-L-MSH2		x										
Multi-Cytokeratin (AE1/AE3)	AE1/AE3	PA0012		NCL-L-AE1/AE3-601		x										
Multiple Myeloma Oncogene 1 (MUM-1)	EAU32	PA0129		NCL-L-MUM1		x										
Napsin A	IP64	PA0064		NCL-L-NAPSIN A		x										
Neurofilament 200kD	N52.1.7	PA0371		NCL-L-NF200-N52		x										
Oct-3/4	N1NK	PA0193		NCL-L-OCT3/4		x										
p53	DO-7	PA0057		NCL-L-p53-D07	x	x										
p63 •	7JUL	PA0103		NCL-L-p63		x										
Pax-5	1EW	PA0552		NCL-L-PAX-5		x										
Placental Alkaline Phosphatase (PLAP)	8A9	PA0161														
Progesterone Receptor	16	PA0312		NCL-L-PGR-312		x	x •									
Prostate Specific Antigen	35H9	PA0431		NCL-L-PSA-431		x										
S-100	Polyclonal	PA0900		NCL-L-S100p		x										
Smooth Muscle Actin, Alpha (SMA)	αsm-1	PA0943		NCL-L-SMA		x										
Terminal Deoxynucleotidyl Transferase (TdT)	SEN28	PA0339		NCL-L-TdT-339	x	x										
Thyroid Transcription Factor-1	SPT24	PA0364		NCL-L-TTF-1		x										
Vimentin	V9	PA0640		NCL-L-VIM-V9	x	x										
Wilms' Tumor	WT49	PA0562		NCL-L-WT1-562		x										

• Not available for sale in United States of America

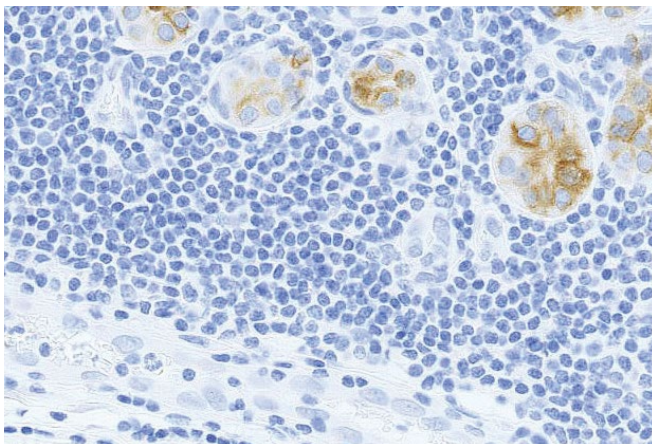




## Total Reagent Solutions: BOND Detection

State-of-the-art biotin-free Compact Polymer Detection. Small multifunctional linkers enhance tissue penetration, producing unsurpassed sensitivity.

DS9800	BOND Polymer Refine Detection	200 tests/kit
DS9390	BOND Polymer Refine Red Detection	100 tests/kit
DS9477	ChromoPlex 1 Dual Detection for BOND	100 tests/kit
DS9665	ChromoPlex 1 Dual Detection for BOND	50 tests/kit



### LEICA BIOSYSTEMS

Leica Biosystems, a global leader in workflow solutions and automation, provides anatomic pathology laboratories and researchers a comprehensive product range for each step in the pathology process, from sample preparation and staining to imaging and reporting. Our easy-to-use and consistently reliable offerings help improve workflow efficiency and diagnostic confidence.

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Advancing  
cancer diagnostics  
to improve lives

