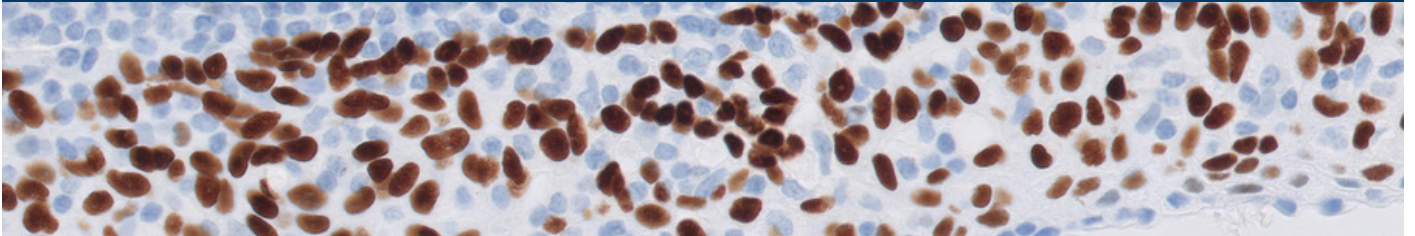




# Achieve More

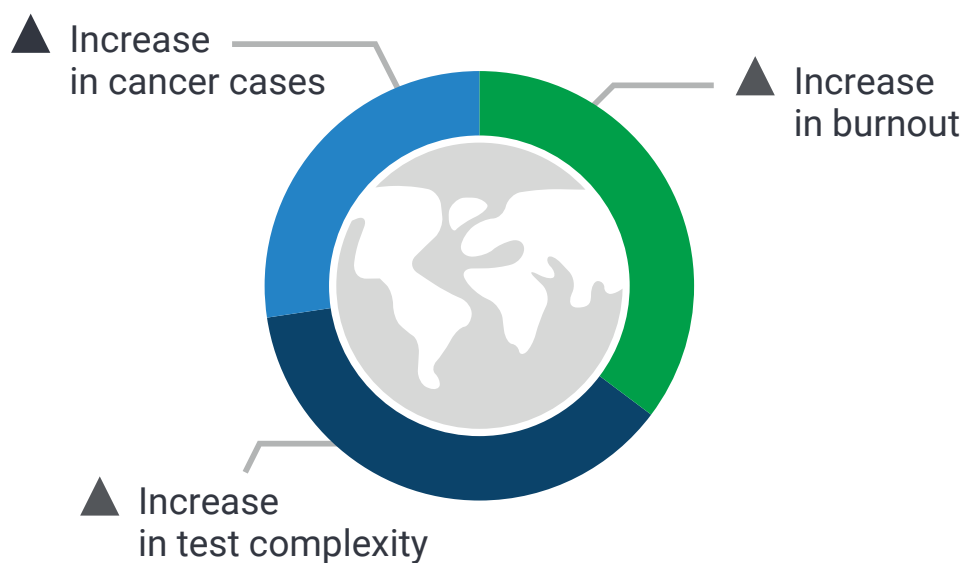
Redefine staining productivity with the Agilent Dako Omnis family



# Agilent Dako Omnis

## A family of instruments for IHC and ISH staining

In today's fast-paced world, pathology labs are striving to manage their daily workload more efficiently, improve cost-effectiveness, and provide timely results. However, the increasing volume and complexity of tests, coupled with a shortage of resources, present significant challenges. Labs are under constant pressure to maximize the value of their available staff and instruments, all without compromising quality. Inadequate staffing and heavy workload have been identified as top contributors to burnout experienced by 85% of lab professionals.<sup>1</sup> Additionally, stringent internal and external documentation requirements are adding to the burden on already stretched resources.



### Relief for an overburdened staff

Many labs lean toward adding more instruments for their advanced tissue staining techniques (IHC/ISH) to keep up with the growing demand and ensure fast turnaround times. However, this approach can backfire. More instruments can increase complexity, which may decrease overall lab efficiency.

Case studies show that additional IHC instruments can require up to 60% extra hands-on time for tasks

such as slide sorting and reagent preparation, leading to an 11–14% increase in turnaround time.<sup>2</sup> Such an outcome is the opposite of what labs aim for. With a predicted 21% increase in cancer cases by 2040 compared to 2020,<sup>3</sup> slide volume is inevitably going to increase. A negative cycle has started.

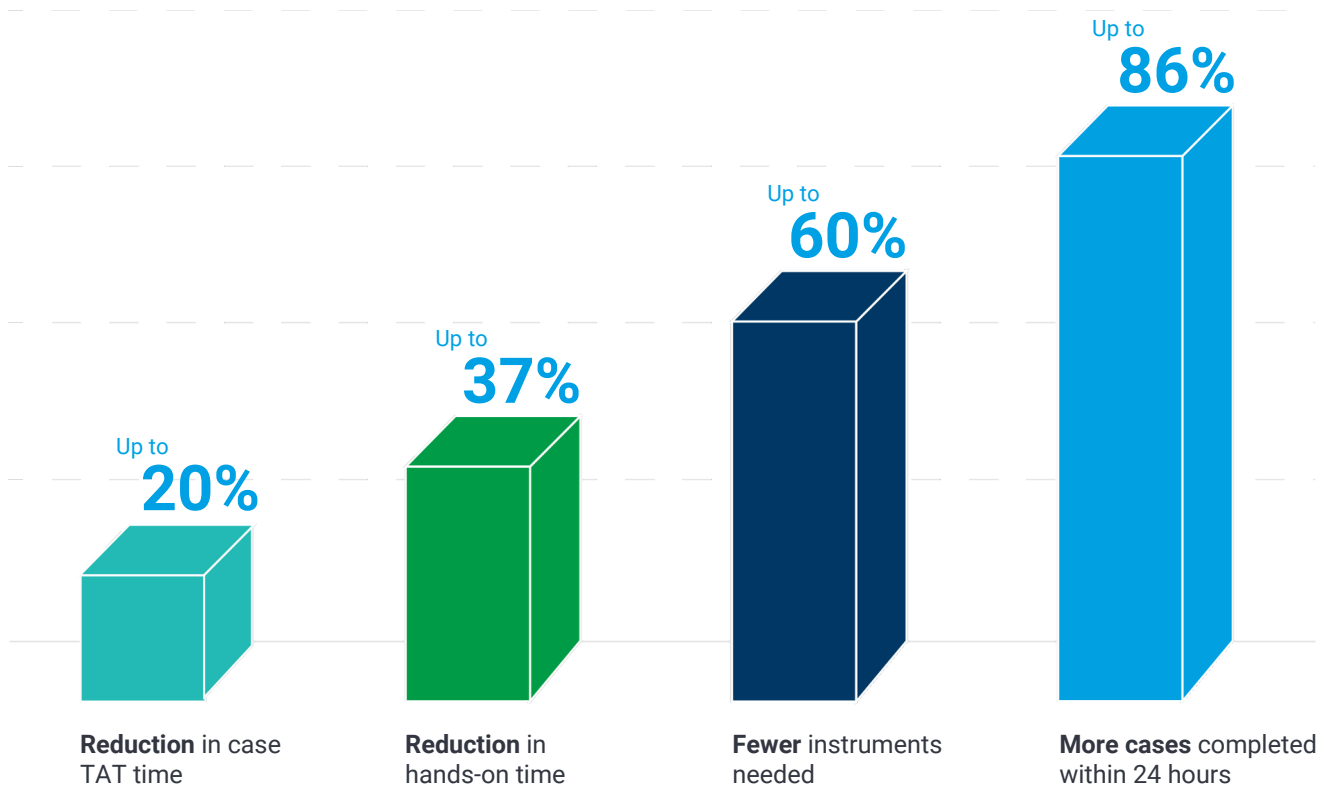
Now more than ever, there's a need for workflow optimizations to address these challenges. Redefining staining productivity can help labs achieve more.

## Higher throughput with less effort

Studies

<sup>2, 4-8</sup> show that a case-based approach to tissue staining and continuous processing supports labs in achieving more with less. Labs can improve efficiency, reduce costs, and provide timely results with an optimized workflow. It is a reasonable assumption that these improvements will also contribute to increased job satisfaction and well-being of staff.

Impact achieved with a case-based approach to tissue staining:



What if you could achieve the same in your lab?

# The Dako Omnis family of instruments

Redefine your advanced tissue staining productivity with continuous processing of patient cases, which will help you achieve more. Get increased throughput with fewer instruments and less hands-on time, while at the same time improving the case turnaround time. By arranging the optimized workflow around the diagnostic unit—the patient case—Dako Omnis enables faster and continuous delivery of complete cases.

## Flexibility and scalability for every lab

With three additional members of the Dako Omnis family, there's a solution that fits every pathology lab. As your lab successfully grows over time, you can pick any combination of instruments that match your new needs.

What can you expect?

- Improved throughput and capacity
- Consistent, high-quality staining results
- Flexibility to handle workload fluctuations
- Ability to run different techniques simultaneously
- Continuous loading for quicker completion of patient cases
- Sharing of reagents across all instruments of the Dako Omnis family

### Dako Omnis Family of Instruments

The Dako Omnis family of instruments includes the models: Dako Omnis 165 Duo, Dako Omnis 165, Dako Omnis 110, and the Dako Omnis.



Agilent Dako Omnis 110



Agilent Dako Omnis 165



Agilent Dako Omnis 165 Duo

Table 1. Configuration of the three new Agilent Dako Omnis instruments.

	Dako Omnis 110	Dako Omnis 165	Dako Omnis 165 Duo
Throughput	110 IHC slides/24 hours	165 IHC slides/24 hours	165 IHC slides/24 hours 30 ISH slides/24 hours
Annual Capacity	5,000–10,000 slides/year	~15,000 slides/year	~15,000 slides/year
Techniques	IHC, double staining, IF, ICC	IHC, double staining, IF, ICC	IHC, double staining, IF, ICC, CISH, FISH
Staining Modes	Patient case mode (recommended) and batch mode	Patient case mode (recommended) and batch mode	Patient case mode (recommended) and batch mode

# Introducing a new bulk management compartment

All the new members of the Dako Omnis family are equipped with a new bulk management compartment, designed to further enhance workflow efficiency in your lab by streamlining processes, reducing hands-on time, and improving overall safety for lab technicians.



## Direct connection to DI water supply

- Eliminates the need for manual waterfilling significantly reducing hands-on time
- Supplied accessories will support seamless integration for users without access to direct DI water supply

**30 L DI water and waste tanks**  
- Allows continuous operation, as actions can be done while the system is running, preventing workflow interruptions



## Direct access

- Simplifies handling and improves efficiency with easy access to bulk tanks



## Automated waste emptying system

- Empties nonhazardous waste directly into the drain while the system is running, eliminating manual handling
- Empties hazardous waste while running, allowing continuous operation
- Supports seamless integration for users without access to direct drain with supplied accessories

## Breadth and quality of portfolio

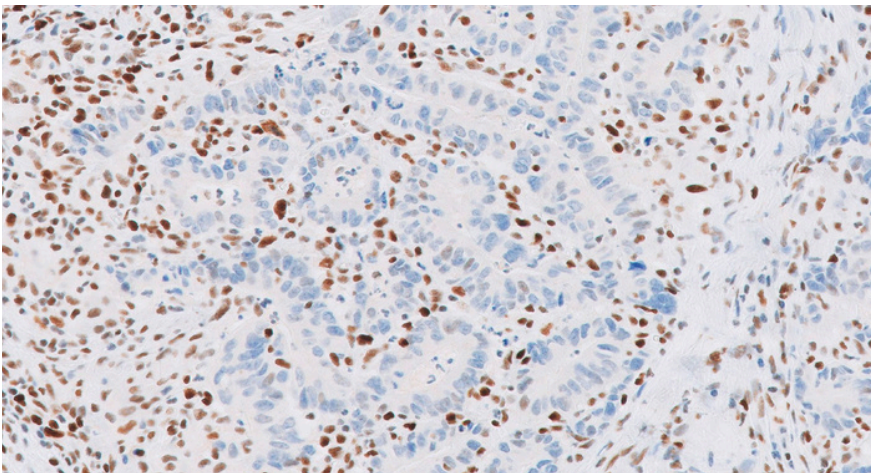
The portfolio of clinically important IHC tests, an advanced visualization system, specialized pharmDx assays, and ISH products is specifically designed and developed for Dako Omnis to ensure fast, accurate, and reliable staining results.

### Antibodies

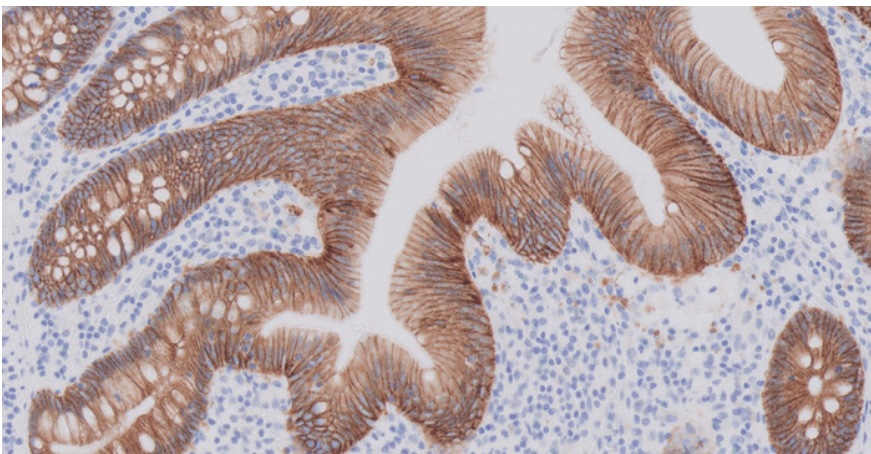
High-quality, ready-to-use (RTU) primary antibodies, based on the renowned Dako heritage for quality IHC primary antibodies, are available. These RTU antibodies encompass all relevant aspects of the staining process, providing a simple and effective approach to staining:

- Fully calibrated antibodies, accompanied by an appropriate plug-and-play protocol to help ensure reliable and reproducible staining results
- Validated protocols to accurately capture the cancer's expression for each protein
- Optimal signal amplification ensured by each step throughout the visualization chain—for easy interpretation with minimal unspecific staining

The portfolio addresses the majority of laboratory testing requirements, encompassing the most relevant tests within breast, lung, skin, lymphoma, prostate, and GI diagnostics.



**Figure 1.** Colorectal carcinoma. Stained with FLEX Anti-MSH6, Code GA086, on Dako Omnis.

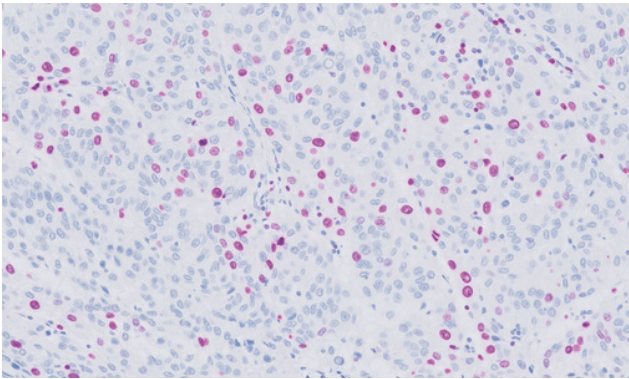


**Figure 2.** Appendix. Stained with FLEX Anti-E-Cadherin, Code GA059 on Dako Omnis.

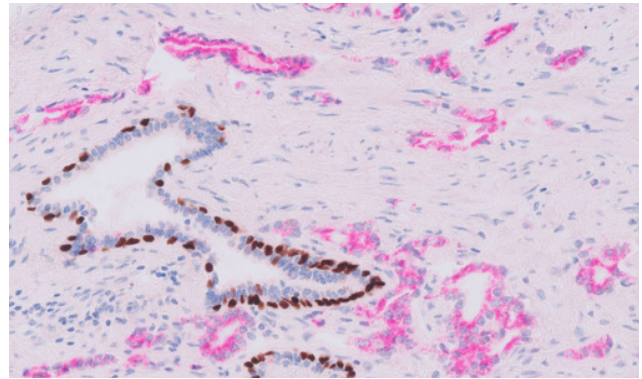
## Visualization system

EnVision FLEX is a high-sensitivity visualization system intended for use in IHC. With one detection system, you have two color options: the standard DAB chromogen or magenta.

The visualization colors can be used individually, as needed, or in combination for fully automated, sequential double staining. This enables clear visualization of two targets in the same tissue section with excellent contrast and transparency.



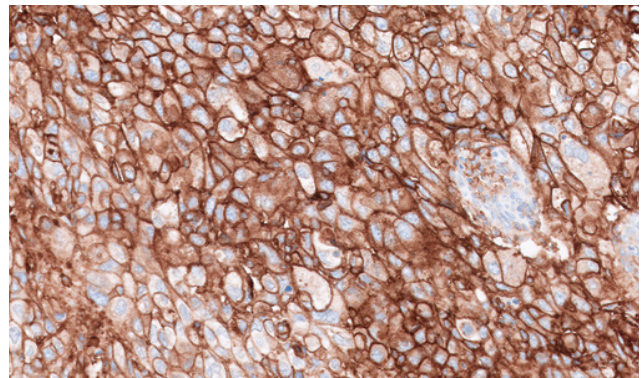
**Figure 3.** Melanoma. Stained with FLEX HRP Magenta, Code GV900, on Dako Omnis.



**Figure 4.** Prostate adenocarcinoma. p63 (DAB, nuclei) and AMACR (Magenta, cytoplasm). Stained with FLEX HRP Magenta, Code GV900, on Dako Omnis.

## Companion diagnostics

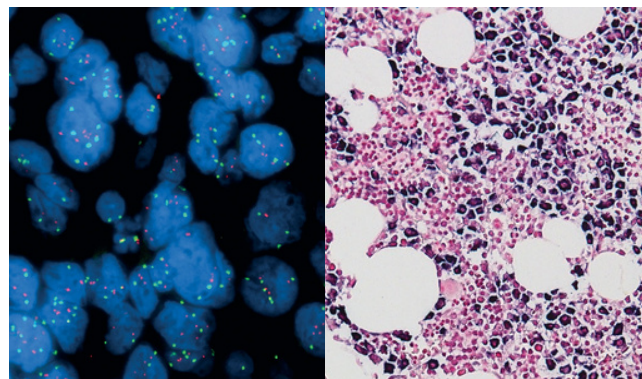
Agilent Dako pharmDx assays have been rigorously validated to ensure high-quality results and a close link to their companion therapies. They are specifically tailored to give optimal results when used on Dako Omnis and will help select the right therapy for patients.



**Figure 5.** Non-small cell lung cancer (NSCLC). Stained with PD-L1 IHC 22C3 pharmDx, Code GE006.

## FISH and CISH

Combined with IQFISH Fast Hybridization Buffer, the solution enables FISH and CISH turnaround times of just 4–5 hours with minimal impact on throughput. Dako Omnis 165 Duo performs fully automated FISH and CISH staining, including hybridization, on FFPE tissue sections simultaneously with your IHC slides to enable fast diagnostic results.



**Figure 6.** Breast carcinoma. Stained with *HER2* IQFISH pharmDx, Code GM333 (left). Bone marrow trephine. Stained with Kappa and Lambda mRNA CISH (Dako Omnis). Code G111700-2 (right).

# Our wealth of expertise is here for you

A network of experienced professionals is available to guide you through any problems to ensure fast, accurate, and reliable staining results.

## Service and support

Bringing a new solution into the lab can be both stressful and exciting. Our Diagnostic Installation Excellence Model takes care of every step and makes the transition quick, simple, and as seamless for your lab as possible.

End-to-end project management with clear expectations, proven and reliable processes, and frequent, relevant communication will help you focus on what you need to do to get ready for the new solution and get the lab up and running quickly.

All steps and agreed-upon deadlines in the installation and deployment process will be aligned with you before the installation takes place, and all relevant process documentation will be shared with you afterward. This includes qualification reports that provide audit-ready documentation with complete traceability to minimize any regulatory audit risk.

After installation, we are ready to provide remote support and on-site assistance to help you minimize downtime. We are committed to continued customer satisfaction.

### Meeting your lab's needs with reliable service and support

- Transparent agreement
- End-to-end project management
- Installation qualification
- Operational qualification
- Performance qualification\*
- Qualification reports
- Instrument and application training
- Protocol and solution optimization
- Process documentation

And a network of experienced professionals to guide you through any problem.

\* Region dependent

# Why choose Dako Omnis?

The Dako Omnis family of instruments is designed to redefine staining productivity so your lab can achieve more. Experience the difference and take your lab's performance to the next level with Dako Omnis.

## Improved Productivity

Proven to increase throughput and reduce case turnaround time

## Family of Instruments

A solution for every lab, regardless of staining volume and required techniques

## Enhanced Flexibility

Provides flexibility and scalability to match your capacity and staining needs now and in the future

## Continuous Processing

Quicker completion of patient cases

## High-Quality Staining

Diagnostic certainty built on Dako's heritage and expertise

## Broad Menu

High-quality antibodies, CDx assays, ISH reagents, visualization systems, and more



## Parallel Processing

Simultaneous IHC and ISH processing for urgent cases

## Dedicated Service

Get peace of mind and maximize uptime

## Extensive Support

Backed by comprehensive workflow and application support

## Streamlined Data Flow

Connectivity solutions to enhance data management

## Adaptable Workflow

Keeps up with the daily changes in testing volume and techniques

Table 3. Detailed configuration of the three Agilent Dako Omnis instruments.

	Dako Omnis 110	Dako Omnis 165	Dako Omnis 165 Duo
Throughput	110 IHC slides/24 hours	165 IHC slides/24 hours	165 IHC slides/24 hours 30 ISH slides/24 hours
Annual Capacity	5,000–10,000 slides/year	~15,000 slides/year	~15,000 slides/year
Techniques	IHC, double staining, IF, ICC	IHC, double staining, IF, ICC	IHC, double staining, IF, ICC, CISH, FISH
Staining Modes	Patient case mode (recommended) and batch mode	Patient case mode (recommended) and batch mode	Patient case mode (recommended) and batch mode
IHC Staining	Two 2-chamber modules (four in total)	Three 2-chamber modules (six in total)	Three 2-chamber modules (six in total)
Pretreatment	Two modules	Three modules	Three modules
ISH Staining	No	No	Yes
Liquid Handling	One robotic reagent pipette	One robotic reagent pipette	One robotic reagent pipette
Liquid Tanks	3 x 30 L internal tanks for DI water and waste – DI filling from external water source	3 x 30 L internal tanks for DI water and waste – DI filling from external water source	3 x 30 L internal tanks for DI water and waste – DI filling from external water source
Liquid Automation	– Waste pump to empty tanks 6 x 3.5 L bulk bottles	– Waste pump to empty tanks 6 x 3.5 L bulk bottles	– Waste pump to empty tanks 8 x 3.5 L bulk bottles
Bulk Bottles			Six IHC racks Three ISH racks
Slide Loading	Six IHC racks	Six IHC racks	60 vials at 18 °C
Reagent Storage	60 vials at 18 °C	60 vials at 18 °C	New OIS 2.4
Software	New OIS 2.4	New OIS 2.4	GI10033
Part Number	GI40030	GI30030	



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Learn more:

[www.agilent.com/en/product/dako-omnis-solution-for-ihc-ish](http://www.agilent.com/en/product/dako-omnis-solution-for-ihc-ish)

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