

Dako Omnis - A Full IHC and ISH Solution Designed for True Patient Case Management



Continuous case-based, and lean workflow

Independent staining units, and a high reagent capacity enable you to run IHC, IF, FISH, CISH and double staining IHC simultaneously on the same instrument, each with a unique combination of reagents. Combined with an onboard capacity of 60 slides and 60 temperature-controlled reagent positions, this gives you a flexible and lean workflow that supports fast patient case turnaround times.

Access to antibodies, visualization and bulk solutions while running removes lead time delay and process interruption to load/unload reagents.

Diagnostic certainty is vital with a life-threatening disease like cancer. That is why Dako Omnis is designed with a host of built-in safety features to control its performance and protect the lab against errors in the staining process that could negatively influence results.

An example of these built-in safety features is the double check for reagents to ensure that the necessary volumes are both available and dispensed correctly on slides every single time.

The Dako Omnis Solution includes:

- FLEX ready-to-use antibodies calibrated and validated to provide high analytical sensitivity and specificity for accurate and reliable IHC results
- Optimized validated protocols developed in collaboration with leading pathology experts
- EnVision FLEX detection system with two colors: DAB and HRP Magenta
- Proven consistent high-quality staining
- DakoLink Omnis Software with LIS and LAN/WAN connectivity enables full lab integration
- Dedicated Service & Support provides fast, professional support when hands-on assistance is needed



Dako Omnis Solution Specifications

Table 1. Instrument specifications.

Specification	Description
Intended use	Dako Omnis is an in vitro diagnostic device intended for automated slide-based immunohistochemistry (IHC) and in situ hybridization (ISH) on formalin-fixed paraffin-embedded tissue sections and immunocytochemistry (ICC) on formalin-fixed cytology specimens. It is intended to be operated by qualified professionals, trained in the use of Dako Omnis, in a pathology laboratory environment.
Operation	Continuous workflow (or batches). 5-slide racks to optimize capacity utilization and patient case management. Reagents and slides can be loaded and unloaded as needed, also during runs. Easy-to-use software interface. Designed with built-in safety measures to minimize potential human errors.
Labeling	CE, IVD and CSA marked.
Quality system	ISO 13485, ISO 13485 MDSAP.
Starter pack content (All delivered with starter pack; can also be ordered separately)	At delivery, the Dako Omnis instrument contains: - Dako Omnis Water Container, 7 L, 5 pcs., Code GC11030 - Dako Omnis Bulk Bottle, Waste Container, 7 L, 5 pcs., Code GC11930 - Dako Omnis Buffer/Solvent Container, 3.5 L, 8 pcs., Code GC10930
	Additional products provided with delivery of a new instrument: - Dako Omnis Slide Rack, 6 pcs, GC10130 Dako Omnis Slide Rack, 6 pcs, GC10130
	 Dako Omnis Slide Rack Color Clips (4 colors, 25 pcs), Code GC10330 (Red), GC10430 (Blue), GC10530 (Green), GC10630 (Grey)
	 Dako Omnis Mixing Strips, 25 pcs, Code GC10730
	 Dako Omnis Solid Waste Bag, 25 pcs, Code GC10830
	- Dako Omnis Buffer/Solvent Container Label sets, Code GC11130
	 Dako Omnis Water/Waste Container Label sets, Code GC11230
	 Dako Omnis Small Vial, 2 mL, box of 25 pcs., Code GC20130-6
	 Dako Omnis Large Vial, 30 mL, box of 25 pcs., Code GC20230-6
	 Large Flap Slide Label Kit, Code S341730
	 Dako Omnis ISH Lid, 5 pcs, Code GC10230
	 Dako Omnis Quick Reference Guide, Code GI10330
	 Dako Omnis User Guides CD, international translations, Code GI10430
Alarms	Sound and visual alarms (green, yellow, red) indicating instrument run status.

Table 2. Reagents.

Specification	Description
Ready-to-Use reagents (antibodies)	Quality-controlled FLEX Ready-to-Use reagents and protocols for optimal staining results. Reagents kept under temperature-controlled conditions (18 °C) to protect reagents from temperature fluctuations.
	Please refer to the Agilent website for a complete list of reagents: https://www.agilent.com/en/product/dako-omnis-solution-for-ihc-ish
Reagent capacity	60 reagent vials.
Visualization kits	EnVision FLEX family offers two color options: DAB and HRP Magenta. Please refer to the Agilent website for a complete list of visualization kits.
Bulk fluid capacity	8 x 3.5 L bottles, for dewax, retrieval buffers, and wash buffers. In addition 4 x 7 L bottles for DI Water.

Table 3. Staining Module.

Specification	Description
Loading of slide racks	Dako Omnis is designed for continuous loading and unloading. The instrument holds 12 racks of 5 slides (60 slides). Dynamic Gap staining technology. Temperature and humidity-controlled processing environment.
Process time (turnaround time)	Average IHC staining time: 2 hours 30 minutes. Average FISH staining time: 4 hours. Average CISH staining time: 5 hours.
Loading capacity	165 IHC slides can be loaded in a typical working day (8 hours including preparation for overnight run). 105 IHC stained during working hours and 60 to be stained overnight. (Based on the average TAT of 2 hours 30 minutes for IHC and continuous loading).
	30 FISH/CISH slides can be loaded in a typical working day (8 hours including preparation overnight). 15 FISH/CISH slides stained during working hours and 15 slides overnight (Based on an average TAT of 4 h for FISH and 5h for CISH and a continuous loading setting)
Overnight run	 12 racks (60 slides), three of which can be ISH (same combination of racks as stated before). Two overnight run modalities: Continuous run (as standard daily runs) Delayed run (based on requested finishing time)
Type of slides	The following slides are validated for Dako Omnis: - FLEX IHC Microscope Slides (K8020) - SuperFrost Plus slides

Table 4. Dimensions and requirements.

Specification	Description				
Instrument dimensions	H x W x D: 177 cm x 150 cm x 80 Height with front cover open: 220		31.5").		
	Packaging dimensions and weigh	s:			
	Instrument Length	Width	Height	Gross Weight	
	Dako Omnis packed 156 cm (61.	") 92 cm (36.2")	205 cm (80.7")	Approx. 580 kg (1,278 lbs)	
	Wooden pallet			Approx. 30 kg (66 lbs)	
	Outer packaging			Approx. 20 kg (44 lbs)	
Electrical requirements/power	The instrument supports both 115 V, 220 V and 230 V. Power consumption: 1200 W per hour.				
External ventilation	Not necessary.				
Water supply	4 bottles of 7 L each.				
	DIW specifications: – Conductivity 0.5–10 uS/cm (free	e of particles and air	r bubbles.)		
Waste/drain	Waste separation between hazardous and nonhazardous waste.				
Waste capacity	Nonhazardous: 4 x 7 L bottles.				
	Hazardous: 1 x 7 L bottle.				
	Average waste produced per slide: – 29 mL hazardous waste				
	 293 mL nonhazardous waste 				
	- 0.49 g plastic waste				
Environmental conditions	The Dako Omnis solution is intended for indoor use only. Dako Omnis requires an environment with an ambient temperature between 18–28 °C (64–82 °F), not facing direct sunlight, and normal operating humidity between 25-85% RH; noncondensing. Altitude: Up to 1000 m (3280 feet). Pollution degree 2. During transport, the instrument should be kept dry, at a temperature between 5–40 °C (41–104°F) and at a humidity between 10–90% RH; noncondensing.				

Table 5. Requirements.

Specification	Description
Noise level	Noise level measurement per EN 61010-1 (safety requirements for electrical equipment for measurement, control, and laboratory use): 63.7 dBA, which is below recommendations for the permissible level. These can be different from country to country and are often in the range of 85–90 dBA.
Heat generation	Max theoretical heat generation is 4100 BTU. Normal running conditions (full load) is 1500–3000 BTU.

Table 6. Protocols

Specification	Description
Validated protocols	All Dako Omnis FLEX RTU validated protocols are pre-loaded in the system, as well as the <i>HER2</i> IQFISH , PD-L1, HercepTest mAb pharmDx (EU + CA), IQFISH IVD panels, EBER RNA CISH and Kappa, Lambda mRNA CISH protocols.
Protocol templates	IHC-HRP including chromogens DAB and Magenta. IHC-AP templates (Avidin-Biotin based or polymer based visualization).
	Immunofluorescence template (direct and indirect).
	Sequential double staining template.
	FISH and single-signal CISH templates.

Table 7. Dako Link Omnis Software

Specification	Description
Network/LIS connection	Connectivity to the Laboratory Information System using ULISA software can be ordered as an additional option. Data transfer using either HL7, XML or CSV formats is supported.
	Bi-directional connectivity allowing a "staining complete" message to be returned to your LIS on successful completion of a slide is available where supported by the LIS.
	The following barcode types are supported; 2D (Datamatrix, QR) and 1D (Code128, I2of5, Code 93, Code 39, Codabar, PDF417).
	Requirements: - Network connection from the Dako Omnis Server to the customer network.
	 Dako ULISA Software installed by a trained Agilent representative.
	 LIS System generating HL7, XML or CSV files.
	 LIS Administrator or LIS vendor to configure customer interface.

Table 8. Service & support

Specification	Description
Installation and service	Deployment services ensure that your Dako Omnis solution is correctly installed and integrated into your lab's work- flow. This includes: – Pre-site inspection
	- Installation
	 Connectivity and operational qualification
	- Instrument service including planned maintenance, corrective maintenance and software upgrades
	Application and technical support including protocol design, optimization, product training and demonstrations for optimal staining performance.
	Instrument service agreement extends the benefits from the standard instrument warranty to avoid unplanned expenses

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