

# Digitize your clinical slides.



## **ZEISS Axioscan 7 clinical**

Your IVD-approved fluorescence slide scanner for diagnostics and clinical research

[zeiss.com/axioscan-clinical](https://zeiss.com/axioscan-clinical)



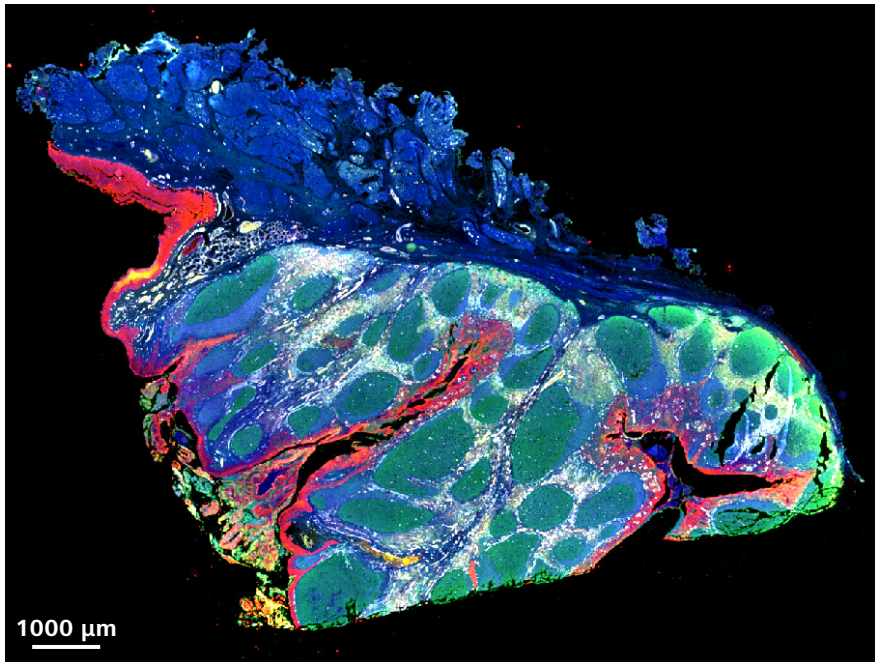
Seeing beyond

# ZEISS Axioscan 7 clinical

Elevate your diagnostic capabilities be it in brightfield, fluorescence or polarization contrast. All reliable, approved for clinical use.

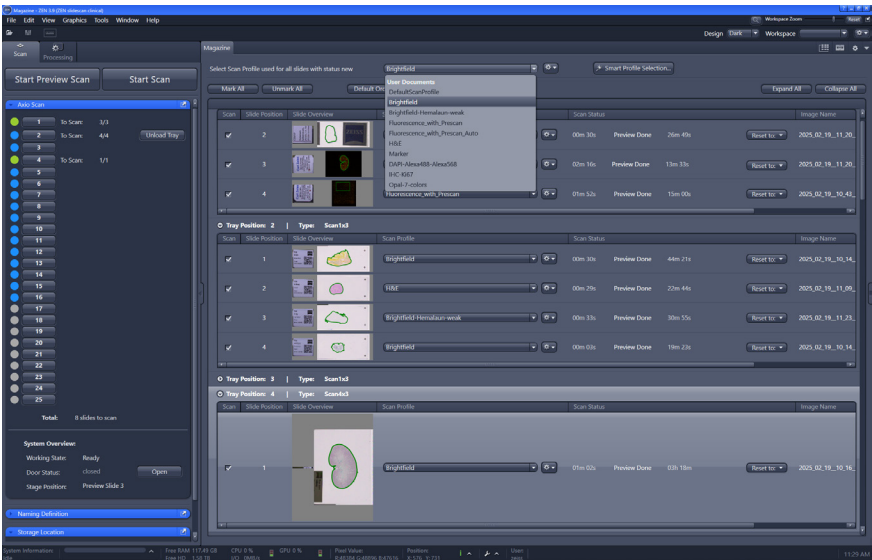


ZEISS Axioscan 7 clinical is your digital slide scanner of choice, if you want to go beyond routine diagnostics. With this IVD\*-approved system you can easily scan your clinical samples in brightfield, fluorescence and even polarization contrast. You get high quality whole slide images (WSI), even at the edges of your slide. Axioscan 7 clinical is designed specifically for clinical professionals who demand precision and versatility in their diagnostic processes. It allows for routine diagnostics of H&E, IHC and special stained tissue sections and shows its specific strengths if you wish for more:



Human tonsil in fluorescence contrast, Opal Polaris 7-color automation IHC kit

- **Versatile sample handling:** use various sample types for diagnostics, incl. those from histopathology and cytology, as well as samples of varying thickness
- **Fluorescence imaging:** use fluorescence microscopy for diagnostic work, e.g. in dermatopathology or immunology
- **Dual functionality:** perfectly suited for both routine diagnostics and clinical research, incl. microtumor environment studies using multiplex immunofluorescence
- **Flexible magnification options:** Not all samples require highest resolution. Scanning at lower magnification can significantly reduce scanning times and file sizes
- **Additional possibilities:** use polarization microscopy to visualize amyloid deposits, collagen structures or other birefringent material in human tissue

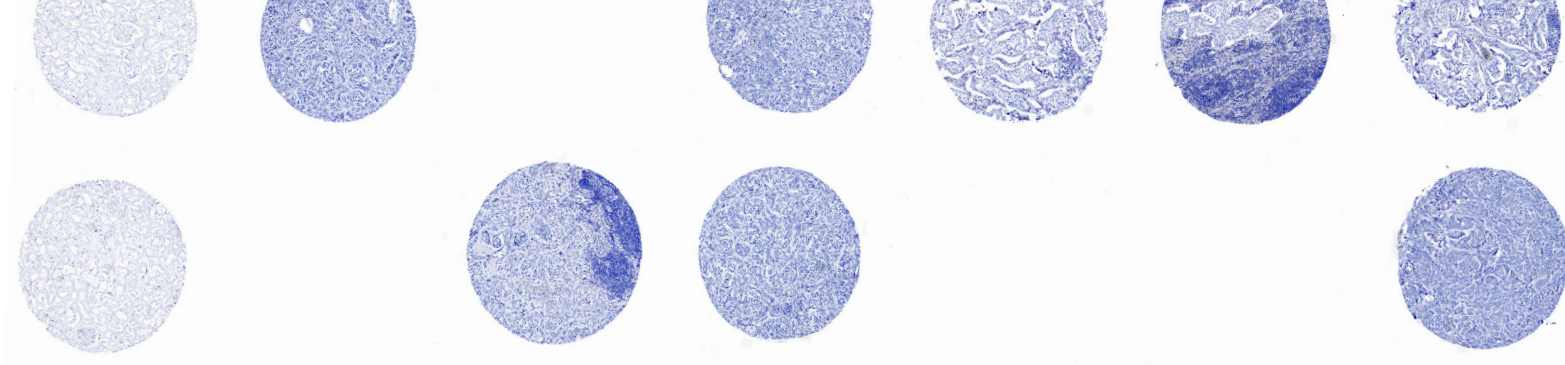


Define scan profiles for different sample types.



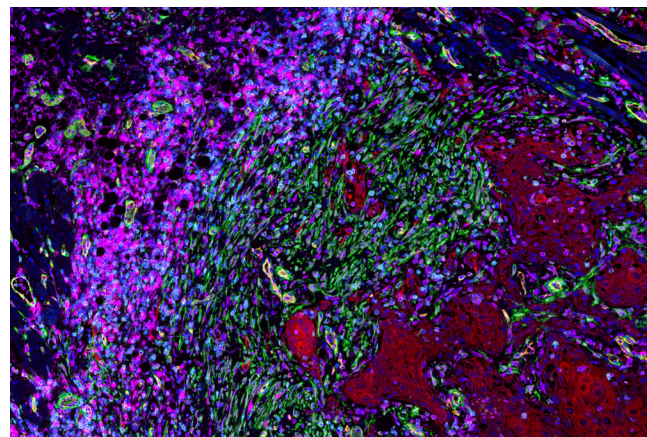
Use different slide formats, stainings or samples.



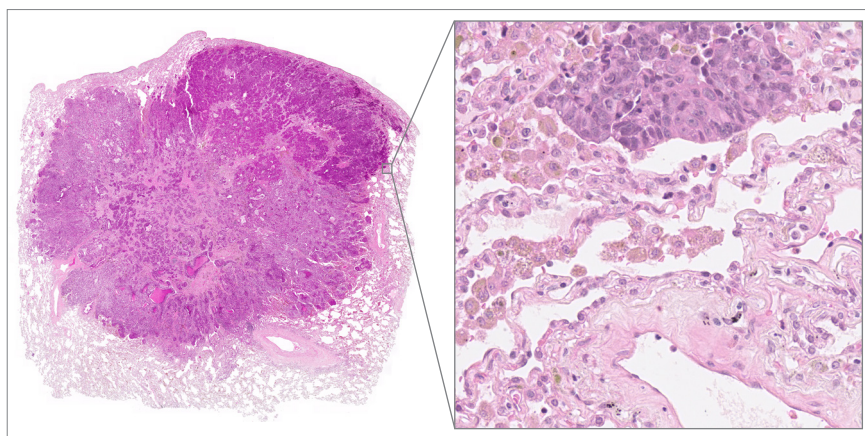


### At a glance

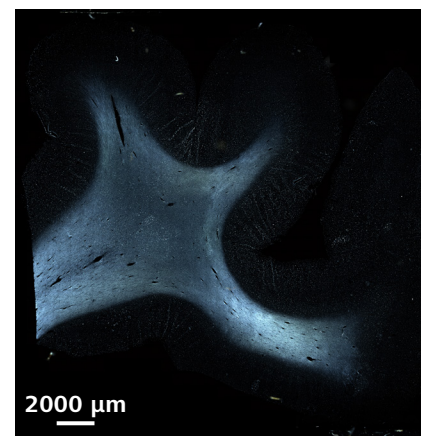
- Focus on routine applications in clinical environments which require IVD compliance or perform research within clinical settings
- Trust on proven image quality
- Benefit from brightfield, fluorescence and circular polarization contrast in one instrument
- Flexible in sample type, sample thickness, and slide formats from 1×3", 2×3", 4×3"
- Increase speed and reduce file size when using lower magnification
- Use z-stacking or EDF for thicker samples
- Analyze human tissue sections with various stainings including fluorescence stains
- Be gentle to your fluorescence samples with TIE contrast
- Maximize system uptime with ZEISS Predictive Service
- Integrate into your lab environment



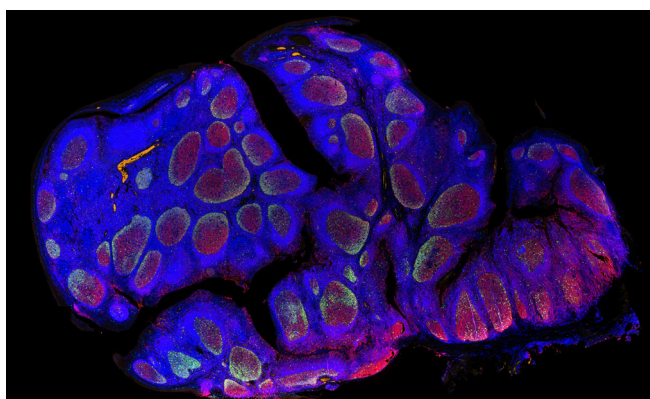
Oral carcinoma tissue with 6 cell specific antigen labelings. Opal dyes.  
Opal 780: Vimentin = mesenchymal cell marker (purple); Opal 690: Cytokeratin = epithelial cell marker (red); Opal 620: CD20 = B lymphocyte marker (pink); Opal 570: CD31 = endothelial cell marker (yellow); Opal 520: CD4/CD8: T lymphocyte marker (light blue); Opal 480: alpha smooth muscle actin = smooth muscle cells and myofibroblasts (green); DAPI: nuclei (dark blue)  
Sample courtesy of N. Gaßler / A. Berndt / D. Samsel, University Hospital Jena, Pathology Department, Germany



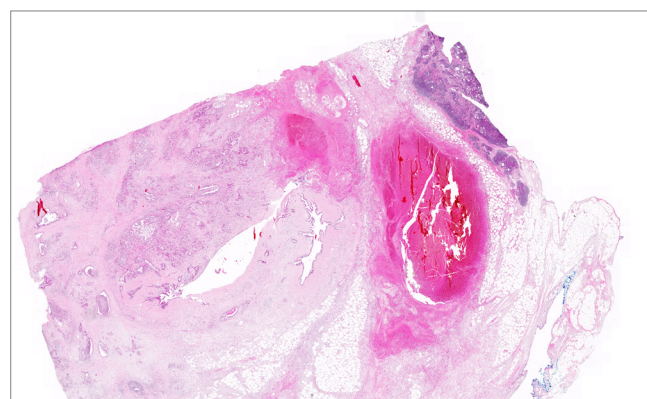
Lung adenocarcinoma in brightfield, H&E staining



Human brain (APP K670\_M671delinsNL) in circular polarization, courtesy of Prof. Dr. M. Morawski, Paul-Flechsig-Institut, Leipzig, Germany



Tonsil in fluorescence contrast



Pancreatic adenocarcinoma in brightfield, H&E staining

# Technical Data and Conformity

Weight and Sizes					
Configuration example	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	
100 slides magazine, brightfield only	579	695	813	105	
100 slides magazine, brightfield and fluorescence with Viluma 7	579	912	813	115	
Pixel resolution (Axiocam 712 mono / Axiocam 705 color)					
5x	0.690 μm / pixel, tolerance ±5 %				
10x	0.345 μm / pixel, tolerance ±5 %				
20x	0.173 μm / pixel, tolerance ±5 %				
40x	0.086 μm / pixel, tolerance ±5 %				
Reflector turret					
Reflector turret with ACR for push and click filter sets					
Number of positions	10				
Type	Optically encoded (no detents)				
Switching time	Approx. 400 ms (between neighboring positions)				
High-speed filter wheels for single filter or beamsplitter					
Number of positions	6				
Type	Optically encoded (no detents)				
	Separate control of excitation, beamsplitter and emission filter wheel				
Switching time	Approx. 50 ms (between neighboring positions)				
Motorized condenser modulator disk					
Number of positions	4 (3 used)				
Contrasting techniques					
Transmitted light brightfield					
Transport of Intensity Equation (TIE) producing digital Phase or relief contrast					
Transmitted light polarization (circular)					
Fluorescence					
Light sources					
Transmitted light	WL-LED (wavelength: 400 to 700 nm, maximum at 460 nm)				
Fluorescence	Viluma 7 (wavelength: 385 nm ±15 nm, 423 nm ±22 nm, 469 nm ±19 nm, 555 nm ±15 nm, 591 nm ±13.5 nm, 631 nm ±16.5 nm, 735 nm ± 20 nm)				
	X-Cite Xylis II XT730L (wavelength: 380 nm to 770 nm)				
Speed					
Brightfield 15×15 mm, 20x, Axiocam 705 color	1:38 min (scan time with minimum nr. of focus points with 40x equivalent resolution*)				
Fluorescence 10×10 mm, 20x, Axiocam 712 mono	3:37 min (scan time with minumum nr. of focus points, Viluma 7, Filterset 112HE LED)				
4 FL channels (10 ms exposure each)					
Certification					
	Regulation IVDR Class A, UK The Medical Device Regulation 2002				
Slide formats					
	Slides (1 × 3", 2 × 3", 4 × 3")				
Maximum scanning area			Maximum preview area for the inscription field		
Slide size (mm)	Scanning area width (mm)	Scanning area length (mm)	Slide size (mm)	Preview area width (mm)	Preview area length (mm)
26 × 76	26	56	26 × 76	32	32
52 × 76	52	56	52 × 76	52	32
100 × 76	90	70	100 × 76	104	32
* according to DICOM standard			The preview area can be set to a larger area, however, this may result in a loss in illumination quality.		



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