Capture your sample precisely as it is.

ZEISS Axiocam 705 color

Your fast 5 megapixel microscope camera for true color image acquisition in high resolution.
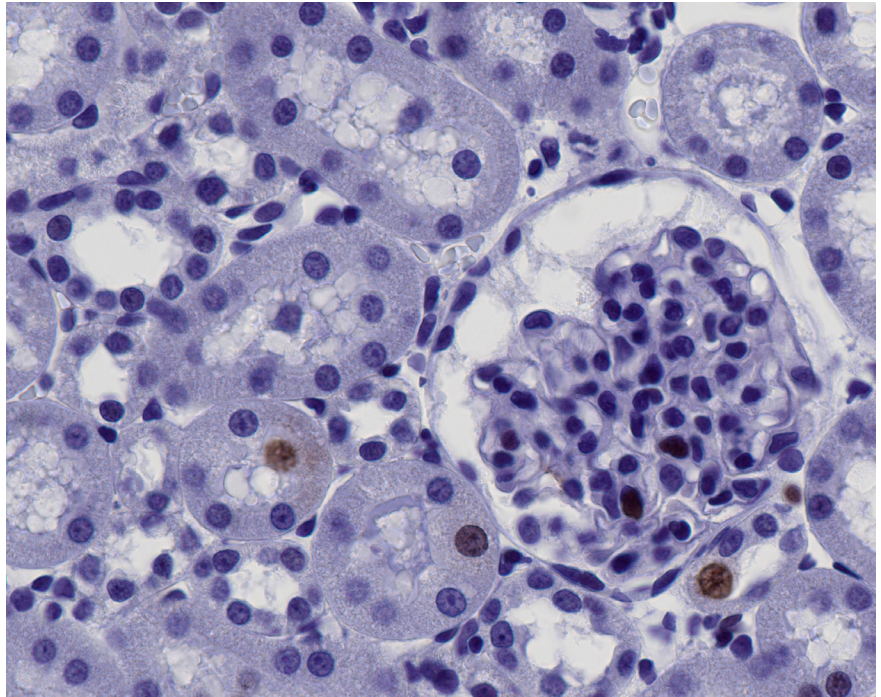
zeiss.com/axiocam705-color

ZEISS

Seeing beyond

ZEISS Axiocam 705 color

Your fast 5 megapixel microscope camera for
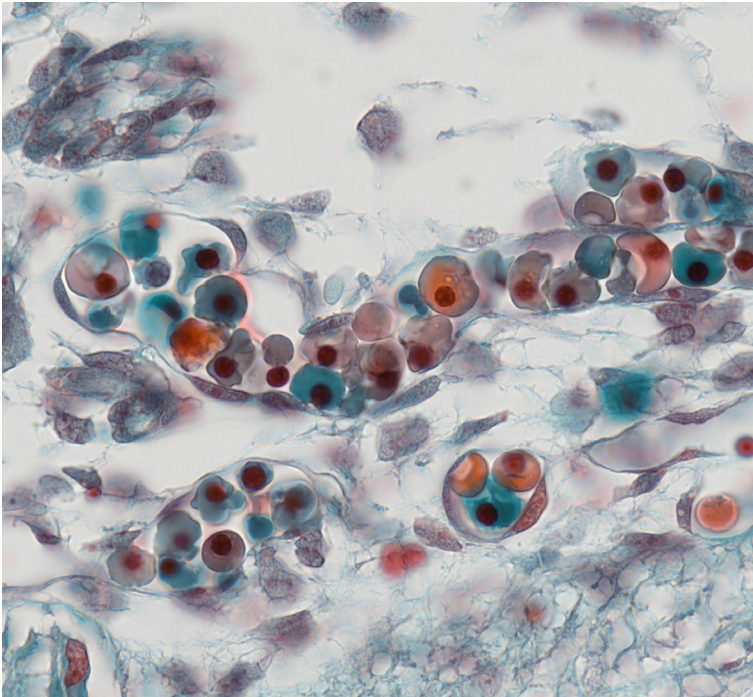true color image acquisition in high resolution.

Rat kidney section. Ki-67 staining.
Imaged with ZEISS Plan-Apochromat 40×/1.4 oil immersion objective.

Axiocam 705 color is your flexible
5 megapixel color camera for those
demanding microscopy applications.
Its sensor strikes the perfect balance
of speed and resolution. Delivering
more than 60 frames per second at full
5 megapixel resolution, this camera
will capture even the most dynamic
processes without compromising the
image resolution. Subsampling or
sub-region readout accelerates your
acquisition speed to hundreds of frames
per second.
The camera's global shutter architecture
makes sure your images always stay
free of motion artefacts.

Axiocam 705 color comes complete
with pixel binning, sensor sub-
region readout, hardware triggering,
uncompressed data transfer, perfect
signal linearity and a wide range of
exposure times. You can enhance the
camera's excellent dynamic range even
further via an exclusive high-dynamic
range (HDR) imaging mode that lets
you capture extreme intensity variations
in a single image. The camera sensor
is actively cooled to provide stable
performance and low image noise.
Use your Axiocam 705 color for a broad
range of microscopy applications, from
pathology and cytology to biomedical
research and material sciences—and
given its superb sensitivity and low
noise, even for fluorescence imaging.

Rat embryonic tissue section. Crossmon's stain.
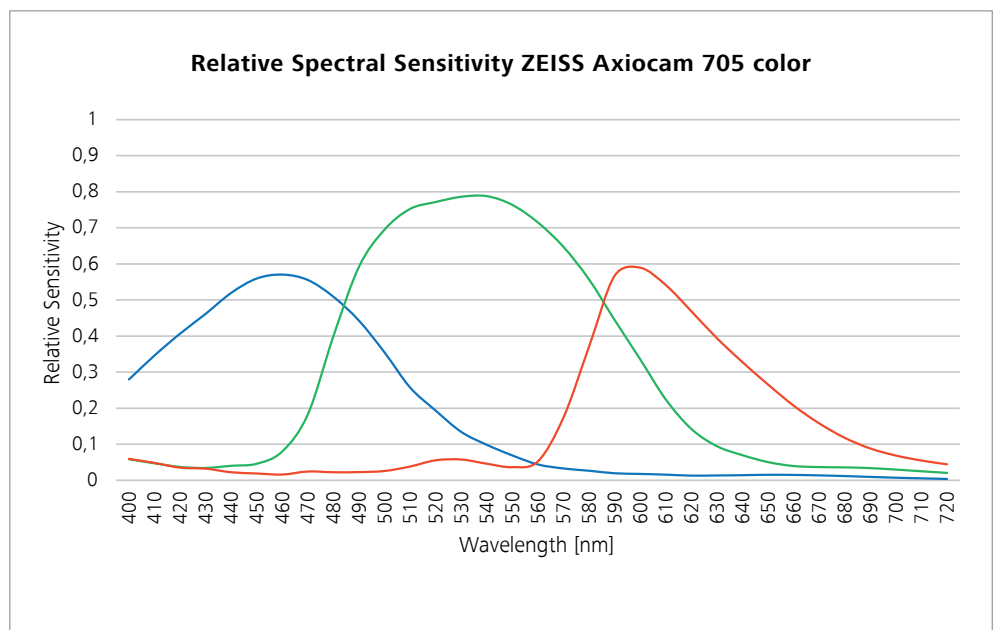*Imaged with ZEISS Plan-Apochromat 63×/1.4 oil immersion objective.*

Highlights

- 5-megapixel cooled color CMOS sensor
- 62 frames per second in full 5-megapixel resolution*
- Best-in-class color rendition
- Color and monochrome imaging modes
- Exclusive noise inhibition technology for low-light imaging
- Dynamic range of 1:25,000 in high-dynamic range (HDR) mode
- Combined analogue and digital pixel binning
- Small 3.45 μm pixels for high-resolution imaging
- Hardware triggering

Recommended for:

- High-resolution microscopy
- High-framerate imaging
- Research
- Documentation
- Industrial applications
- Materials research
- Quality control
- Medical microscopy
- Pathology
- Cytology

* specified framerate assumes a sufficiently performant computer and a short camera exposure time

Relative Spectral Sensitivity ZEISS Axiocam 705 color

Technical Specifications

Technical Data

Sensor type	Sony CMOS color image sensor, global shutter architecture
Sensor size	Image diagonal 11.1 mm, equivalent to ⅔" sensor format (8.5 mm × 7.1 mm)
Pixel count	2464 (H) × 2056 (V) = 5.07 megapixel
Hardware sensor subsampling	2×2: 1232 (H) × 1028 (V) = 1.25 megapixel @ full field of view
Pixel size	3.45 μm × 3.45 μm
Bit depth	14 bit, 12 bit or 8 bit
Exposure time range	from 0.1 ms to 60 s
Gain	1×, 2×, 4×, 8×, 16×
Binning	1×1, 2×2, 3×3, 4×4, 5×5 (combined analog and digital binning)
Dark current signal	< 0,5 e/pixel/s at sensor temperature 18 °C
Frame rate	30 fps live image H × V (ROI)　Frame Rate (fps) 2464 × 2056　60 1920 × 1080　115 1232 × 1028　173 (2×2 subsampling, full field of view) 1024 × 1024　121 512 × 512　235 1920 × 256　436
Dynamic range	Read Noise (gain)　Full Well　Dynamic Range 2.20 e (1×)　11,000 e　1:5,000 1.74 e (2×)　5,000 e　1:3,100 1.48 e (4×)　2,700 e　1:1,800 1.29 e (8×)　1,300 e　1:1,300 1.15 e (16×)　690 e　1:600
High dynamic range (HDR) mode	Extended dynamic range 1:25.000
Cooling system	Active thermoelectric cooling, regulated sensor temperature 18 °C
Spectral sensitivity	Approx. 400 nm – 720 nm, anti-reflection coated infrared (IR) filter
Interfaces	USB 3.0 (data & power) and USB 2.0 (power only)
Trigger ports	Trigger-in, trigger-out, status readout
Power supply	From PC through USB connections, max. power consumption: 7 W
Operating system	Windows 10 Pro / Ultimate
Software	ZEN 3.1 (blue edition) or newer, ZEN core 2.7 or newer
Image enhancement functions	Denoise, unsharp mask, shading correction, dark current compensation, blemish removal
Automatic features	Automatic exposure time optimization
Optical/mechanical interface	C-Mount
Dimensions and weight	10.8 cm × 7.8 cm × 4.3 cm (2.3" × 3.2" × 1.7"), 580 g
Order number	426560-9050-000

CE

ISO 9001:2015

ISO 13485:2016

Carl Zeiss Microscopy GmbH
07745 Jena, Germany
microscopy@zeiss.com
www.zeiss.com/axiocam705-color

MicroscopeWorld

info@microscopeworld.com | 800-942-0528