



Product comparison:

PROGRES GRYPHAX® SUBRA vs. ProgRes® CT3

PROGRES GRYPHAX® SUBRA



Explore the micro universe in Full HD.

The **essential solution** for routine applications

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PROGRES GRYPHAX® - comparison

All camera comparisons are based on results of our JENOPTIK digital image laboratory. The quality of our cameras is proven by spectral measurement at our laboratory and is based on guidelines of EMVA 1288 standard.

Comparison of PROGRES GRYPHAX® SUBRA



Refine every microscope workstation.

PROGRES GRYPHAX® SUBRA
supersedes all 3 MPix CMOS microscope cameras.

PROGRES GRYPHAX® SUBRA is made as an **essential solution** for routine microscope applications. This camera provides fast live images with brilliant color reproduction, using a **2/3"** CMOS sensor with **global shutter** technology, at very short exposure times.

Within this comparison we take a look at the ProgRes® CT3 compared to PROGRES GRYPHAX® SUBRA, the successor of ProgRes® CT3.

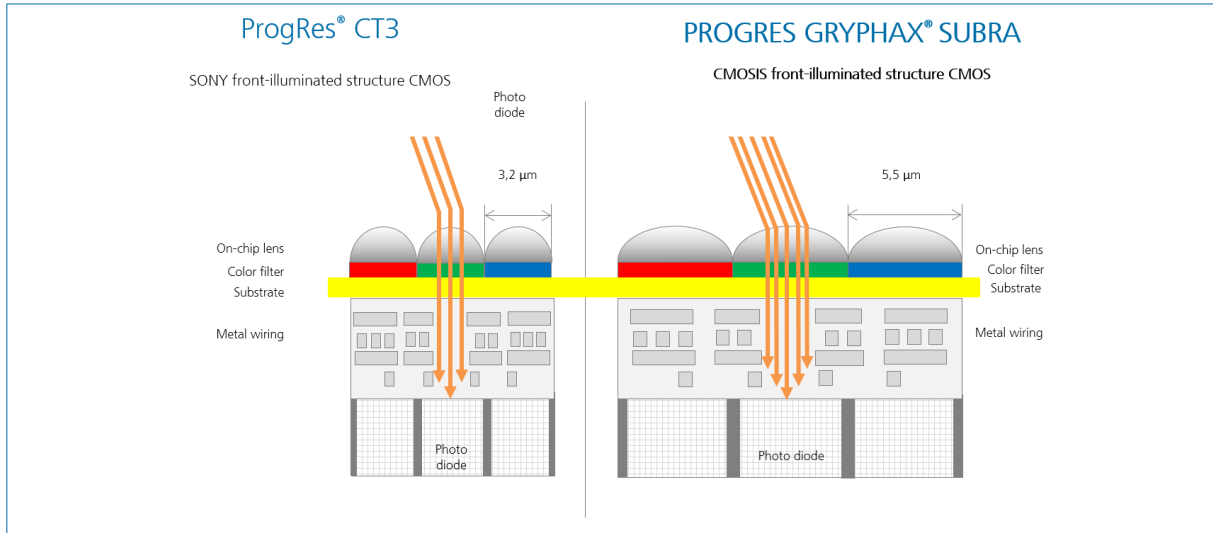
Sensor/Camera	ProgRes® CT3 with IR cut filter	PROGRES GRYPHAX® SUBRA with IR cut filter
Utilized sensor diagonal	8,19 mm	12,75 mm
FPS	8 at 3.1 MPix (2048 x 1536)	30 at 2.2 MPix (2048 x 1084)
Pixel Pitch [μm^2]	3.2 x 3.2	5.5 x 5.5
Quantum Efficiency [N(e-)/N(p)] @ 532nm (green)	0.30 QE(λ) see spectral data	0.40 QE(λ) see spectral data
Dark Noise [DN/e-]	1.8 DN; 30e-	1,6 DN (at 10 bit); 13e-
Dynamic Range (DR)	54.0 dB	56.0 dB

By reason on our measurements, done within our laboratory and based on guidelines of EMVA 1288.

Sensor

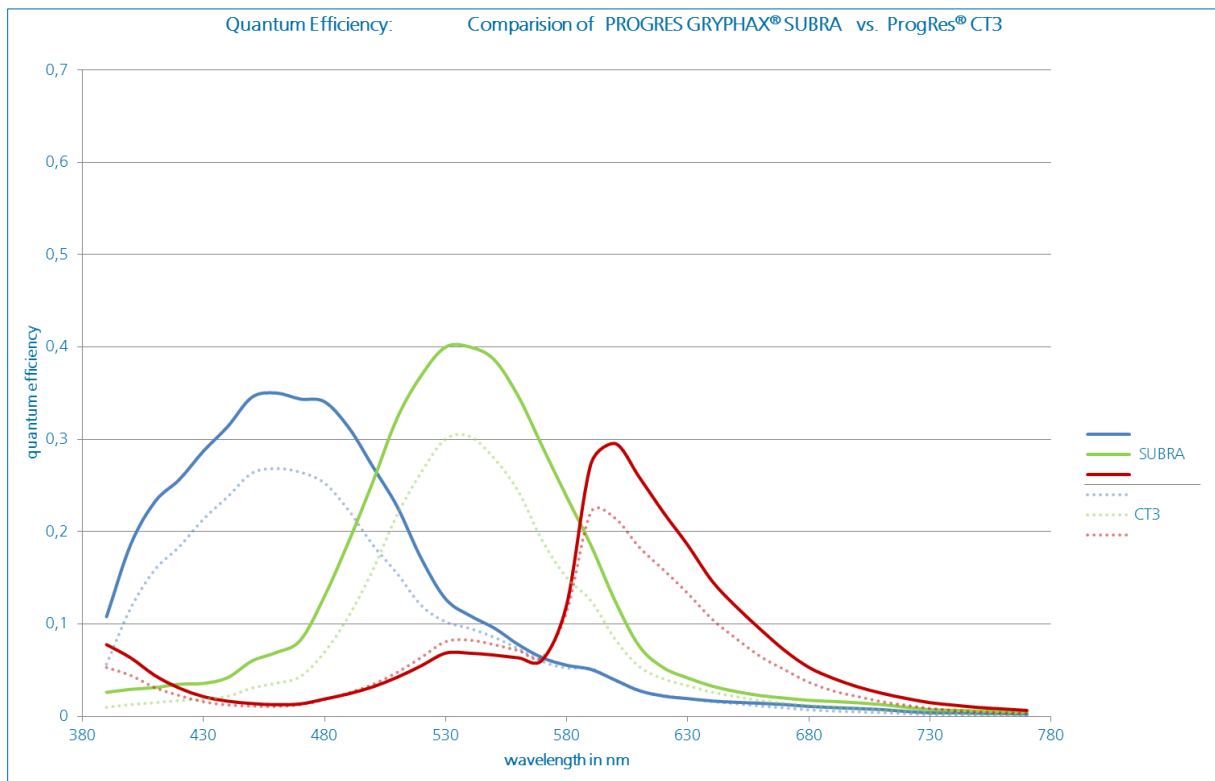


PROGRES GRYPHAX® SUBRA is equipped with CMOSIS front-illuminated CMOS sensor technology.



Source: Graphic done by Jenoptik based on information from www.sony.net

Quantum efficiency with IR-cut filter:





PROGRES GRYPHAX® SUBRA's quantum efficiency is more than **33% higher** (at 532 nm) than ProgRes® CT3.

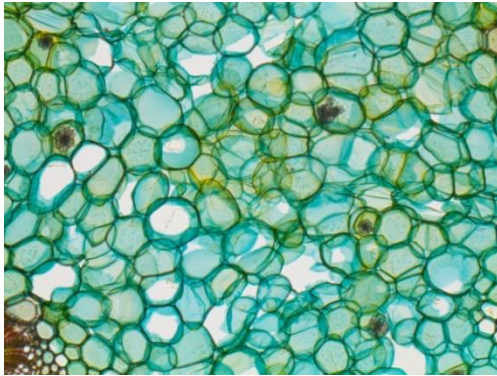
PROGRES GRYPHAX® SUBRA **advantages:**

- ☆ Effective photon to electron transformation
- ☆ Less illumination
- ☆ Very short exposure times
- ☆ Large pixel size
- ☆ Global shutter
- ☆ Secure investment: long-lasting & reliable hardware

Sensor size with basic TV-adapter 1,0

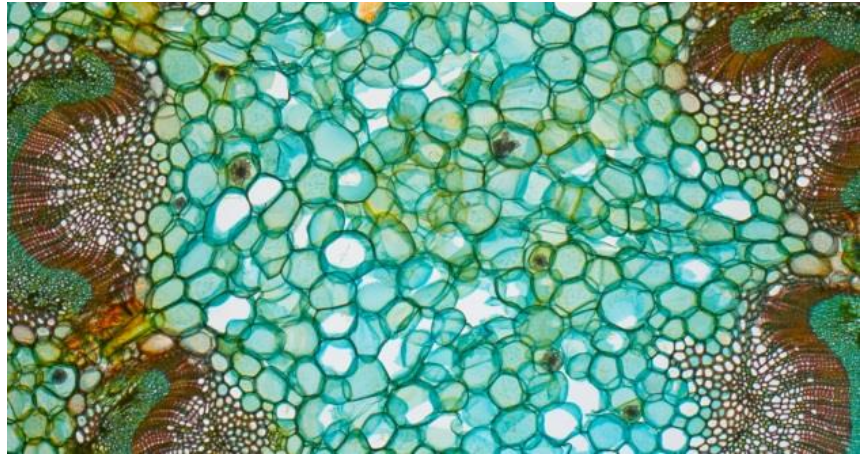
Magnify the field of view with the perfect TV-adaption, depending on the microscope brand.

ProgRes® CT3
CMOS 1/2"

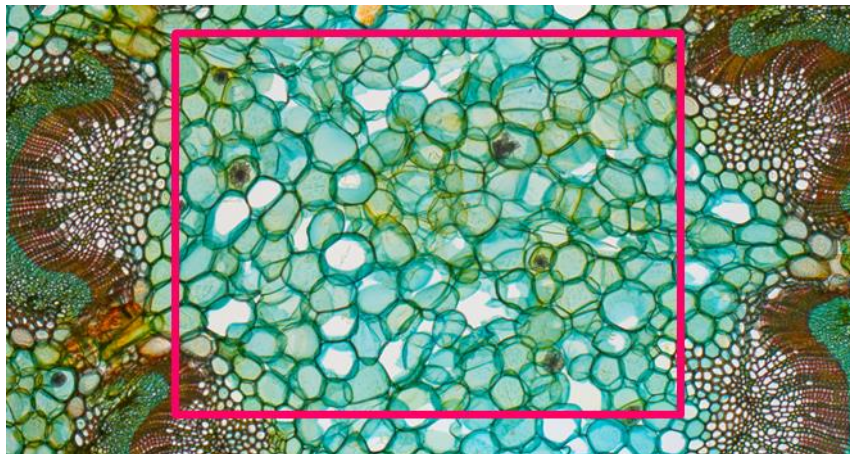


TV-Adaption Zeiss 1,0x (60N-C 1")

PROGRES GRYPHAX® SUBRA
CMOS 2/3"



TV-Adaption Zeiss 1,0x (60N-C 1")



Equipment:

Microscope Zeiss AxioScope.A1

Lens Zeiss 5x EC-Epiplan-NEOFLUAR

Sample:

Hedera Helix (Gemeiner Efeu) Blattstiel quer "1037"

Sensor size with best fitting TV-adaptor 0,63

ProgRes® CT3
CMOS 1/2"

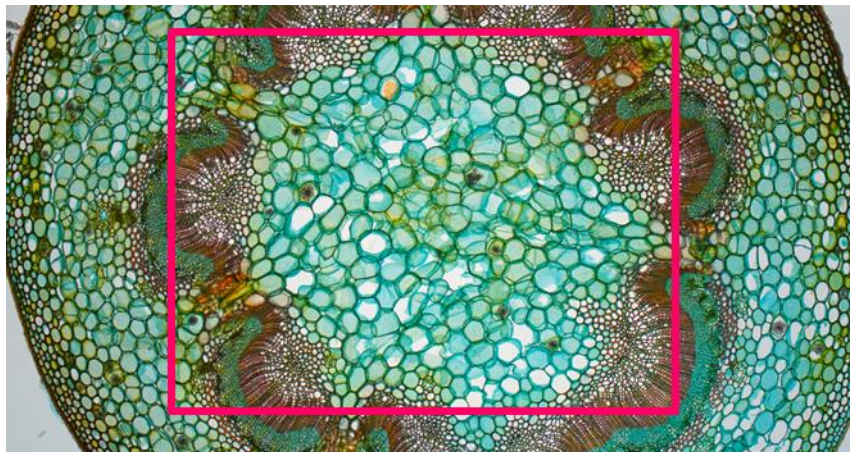


TV-Adaption Zeiss 0,63x (60N-C 2/3")

PROGRES GRYPHAX® SUBRA
CMOS 2/3"



TV-Adaption Zeiss 0,63x (60N-C 2/3")



Equipment:	Microscope	Zeiss AxioScope.A1
	Lens	Zeiss 5x EC-Epiplan-NEOFLUAR
Sample:	Hedera Helix (Gemeiner Efeu) Blattstiel quer "1037"	



PROGRES GRYPHAX® SUBRA

has a more than **two times larger** sensor field than ProgRes® CT3.

PROGRES GRYPHAX® SUBRA advantages:

- ☆ Microscopy-optimized field of view
- ☆ Cost-efficient TV adaption 1x are suitable

Live image



PROGRES GRYPHAX® SUBRA is equipped with a **progressive scan** and pipelined **global shutter** sensor. It provides **fast live image speed**, perfect for video recording. This is nearly four times faster compared to CT3.

Main features of PROGRES GRYPHAX software take advantage of the modern camera characteristics.

Video

PROGRES GRYPHAX® SUBRA **advantages:**

- ☆ Video speed at live image: “You get what you see”
- ☆ Video recording of living specimen or specimen to be moved at brilliant image quality, without interlace effect or other image affectation.

EDF/ Z-stacking

PROGRES GRYPHAX® SUBRA **advantage:**

- ☆ Real-time appearance of EDF/ Z-stacking images (no interlace effect, no distorted images) saves time.

Panorama

PROGRES GRYPHAX® SUBRA **advantage:**

- ☆ Real-time appearance of Panorama image (no interlace effect, no distorted images) saves time.

Software



PROGRES GRYPHAX software is workflow optimized capture software. It is created to help users intuitive getting the perfect live and captured image and saving time.

PROGRES GRYPHAX® Software **advantage:**

- ☆ Cross-platform compatible WIN, MAC and LINUX
- ☆ Identical GUI across WIN, MAC and LINUX platform

Weight and dimension

ProgRes® CT3		PROGRES GRYPHAX® SUBRA	
Weight:	~ 600 gr	Weight:	~ 400 gr
Dimension::	L x W x H in mm 89 x 84 x 93	Dimension:	L x W x H in mm 85 x 75 x 50,2

PROGRES GRYPHAX® Packaging **advantage:**

- ☆ Lower transport costs due to less weight and dimension of housing and camera packaging.

Summary

PROGRES GRYPHAX® SUBRA advantages at a glance:

- ☆ Effective photon to electron transformation
- ☆ Less illumination
- ☆ Very short exposure times
- ☆ Large pixel size
- ☆ Global shutter
- ☆ Secure investment: long-lasting & reliable hardware
- ☆ Microscopy-optimized field of view
- ☆ Cost-efficient TV adaption 1x are suitable
- ☆ Video speed at live image: "You get what you see"
- ☆ Real-time appearance of EDF/ Z-stacking images saves time.
- ☆ Real-time appearance of Panorama image saves time.
- ☆ Cross-platform compatible WIN, MAC and LINUX
- ☆ Identical GUI across WIN, MAC and LINUX platform
- ☆ Lower transport costs.



Refine every microscope workstation with
PROGRES GRYPHAX® SUBRA.

The **essential solution** for routine applications

Focus your activities on our **new product portfolio** PROGRES GRYPHAX®.

PROGRES
GRYPHAX® SUBRA



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