

Zeiss Cell Discoverer

Filter Setups

DYE	LED	Ex	Multi-band Em Filter		
			90 HE RQFT 405+493+575+653	91 HE RTFT 450+538+610	92 HE RTFT 405+493+610
DAPI	385 nm	385/30	425/30		425/30
CFP	420 nm	423/44		467/24	
GFP	470 nm	469/38	514/30		524/50
YFP	520 nm	511/44		555/25	
Cy3	567 nm	555/30	592/25		
mCh	590 nm	591/27		687/145	688/145
Cy5	625 nm	631/33	709/100		

Dioden-Laser

405nm – 488nm – 561nm – 640nm

Objectives

Objective	+ Zoom	Immersion	Effective Depth-Range coverglas or carrier bottom thickness 0.17mm	Effective Depth-Range coverglas or carrier bottom thickness 1 mm
Plan Apochromat	2,5/0,2	Air	3,99mm	2,66mm
5x/0,35	5/0,35	Air		
(?)	10/0,35	Air		
Plan Apochromat	10x/0,35	Air	1,33mm	0,4mm
20x/0,7 autocorr	20x/0,7	Air		
(4923000258)	40x/0,7	Air		
Plan Apochromat	10x/0,5	Air	0,4mm	----
20x/0,95 autocorr	20x/ 0,8	Air		
(49234000184)	40x/0,95	Air		
Plan Apochromat	25x/1,2W	Water	0,4mm	----
50x/1,2 W autocorr	50x/1,2W	Water		
(4925000290)	100x/1,2W	Water		

Camera

Axiocam 712 mono (Sony IMX304 Exmor CMOS)

Number of Pixel: **4096** (H) x **3008** (V) = **12 MP**

Frame rates for times series (for i.e. 1ms exposure time)

H	x	V (ROI)	Frames/s
4096		3008	23
2048		1504	46
1920		1080	63
1024		1024	66
1920		256	241
1920		128	431

Detector-Option

GaAsP-PMT (2x)

Airyscan Typ 2 [max speed 4 frames /sec in SR mode and up to 18.9 frames/sec in Multiplex Mode or up to 8.3/sec in Multiplex CO-2Y Mode (512x512)]

Stage Inserts

Insert for **1 x Petridish 35/60** > „35“ (D=30...38mm) or „60“ (D=50...60mm)

Insert for **6 x Petridishes 35** > „35“ (D=34...36mm)

Insert for **2 x Slides 76x26mm**

Insert for **2 x Slides/Lab-Tek™ chamber 57x26mm**

Insert for **6 x Petridishes 35** > „35“ (D=34...36mm)

Insert for **3 x Calibration slides** > incl. 3 Calibration-Slides and 1 Calibration-Microtiterplate

Environmental Control, Gadgets

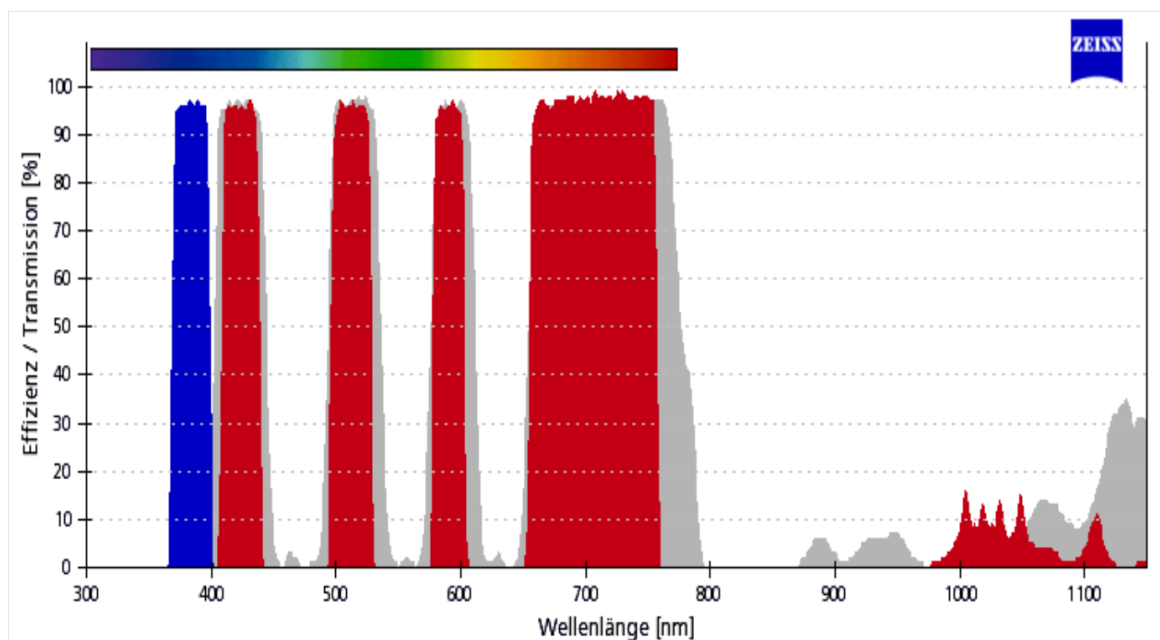
Internal chamber temperature control, steps 0,1°C , accuracy +/-0,1°C

Filtersatz 90 HE LED

(Artikelnummer 489090-9110-000 similar to 90 HE filter 489090-9030-000, used in the system)

This filter set is only suitable for use with the Colibri 5 or 7 light source.

It does not contain any excitation filters. These are included in the corresponding Colibri light source.



	91 HE LED			
Ex	BP 385/30	BP 469/38	BP 555/30	BP633/31
BS	QBS 405 + 493 + 575 + 653			
Em	QBS 425/30 + 514/30 + 592/25 + 709/100			

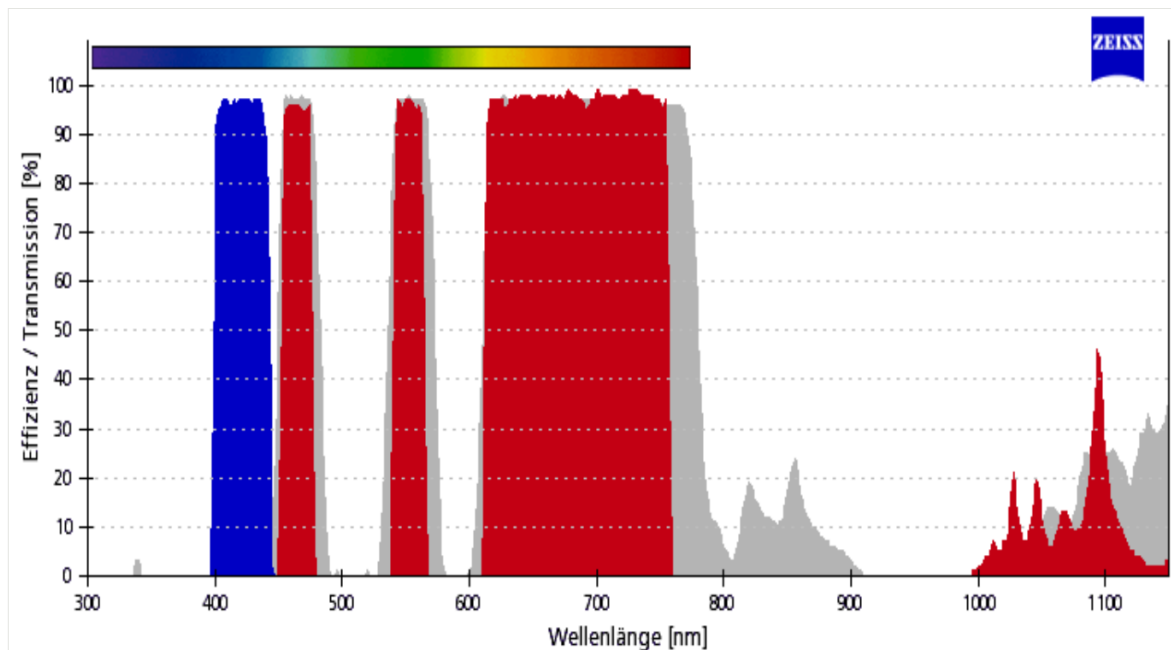
Some suitable fluorescent dyes		
for more see link		
https://www.micro-shop.zeiss.com/de/de/shop/filterAssistant/filtersets/489090-9110-000		
Name	Excitation	Emmision
Alexa 405	401 nm	421 nm
Alexa 430	431 nm	540 nm
Alexa 488	493 nm	520 nm
Alexa 546	562 nm	573 nm
Alexa 555	553 nm	568 nm
Alexa 568	576 nm	603 nm
Alexa 633	632 nm	648 nm
Alexa 647	653 nm	669 nm
Alexa 660	664 nm	691 nm
Cy 5	646 nm	664 nm
DAPI	358 nm	463 nm
DsRed	563 nm	581 nm
DTAF	495 nm	517 nm
dTomato	554 nm	581 nm
DyLight 405	399 nm	434 nm
DyLight 488	493 nm	518 nm
DyLight 549	555 nm	569 nm
DyLight 633	624 nm	646 nm
DyLight 649	652 nm	668 nm
eCFP (Enhanced Cyan Fluorescent Protein)	437 nm	476 nm
eGFP (Enhanced Green Fluorescent Protein)	488 nm	509 nm

Filtersatz 91 HE LED

(Artikelnummer 489091-9110-000 similar to 91 HE filter 489091-9030-000, used in the system)

This filter set is only suitable for use with the Colibri 5 or 7 light source.

It does not contain any excitation filters. These are included in the corresponding Colibri light source.



	91 HE LED		
Ex	BP 423/44	BP 511/44	BP 591/27
BS	TBS 450 + 538 + 610		
Em	TBP 467/24 + 555/25 + 687/145		

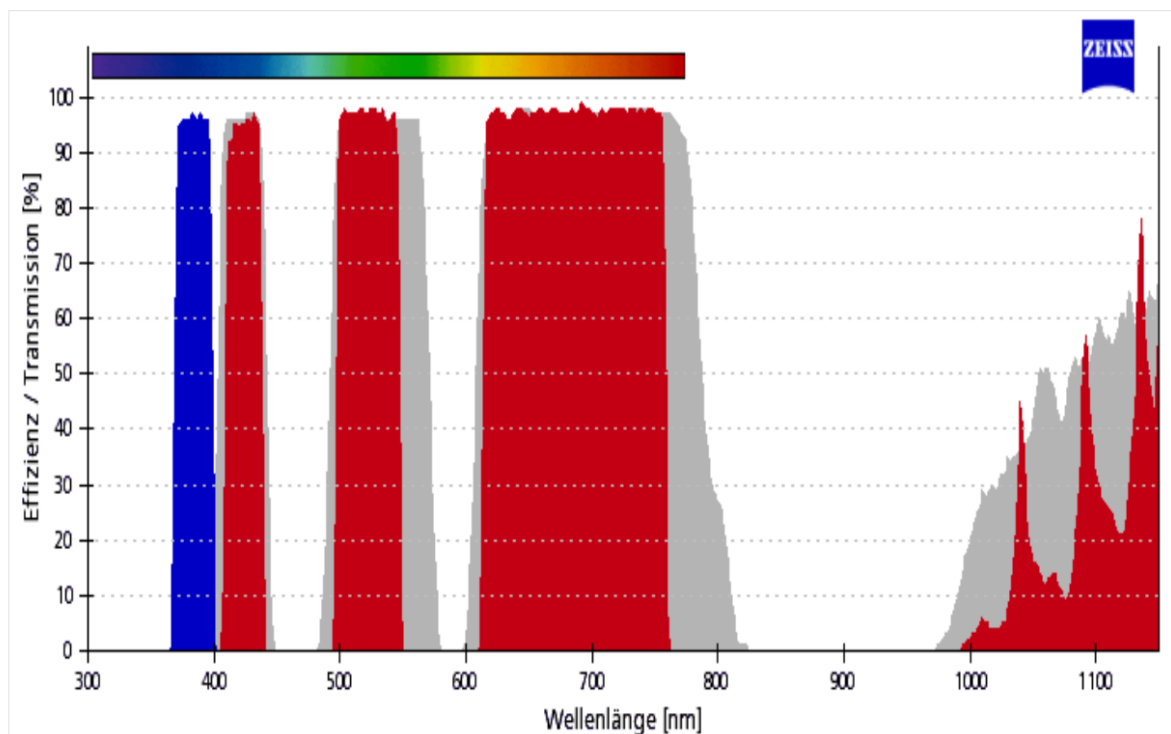
Some suitable fluorescent dyes		
for more see link		
https://www.micro-shop.zeiss.com/de/de/shop/filterAssistant/filtersets/489091-9110-000		
Name	Excitation	Emmision
Acridine Orange	431 nm	520 nm
Alexa 405	401 nm	421 nm
Alexa 430	431 nm	540 nm
Alexa 532	528 nm	553 nm
Alexa 568	576 nm	603 nm
Alexa 594	590 nm	619 nm
CFP (Cyan Fluorescent Protein)	434 nm	474 nm
DyLight 594	592 nm	616 nm
eCFP (Enhanced Cyan Fluorescent Protein)	437 nm	476 nm
Eosin	524 nm	546 nm
Fluo-3 Ca2+	506 nm	527 nm
Fura Red Ca2+	435 nm	670 nm
Fura Red, high Ca	434 nm	659 nm
Fura Red, low Ca	472 nm	673 nm
mCherry	587 nm	610 nm
mHoneydew	478 nm	562 nm
MitoTracker Red	578 nm	599 nm
MitoTracker Red, MeOH	578 nm	599 nm
mPlum	587 nm	649 nm
mRFP	585 nm	608 nm

Filtersatz 92 HE LED

(Artikelnummer 489092-9110-000 similar to 92 HE filter 489092-9030-000, used in the system)

This filter set is only suitable for use with the Colibri 5 or 7 light source.

It does not contain any excitation filters. These are included in the corresponding Colibri light source.



	91 HE LED		
Ex	BP 385/30	BP 469/38	BP591/27
BS	TBS 405 + 493 + 653		
Em	TBS 425/30 + 524/50 + 688/145		

Some suitable fluorescent dyes

for more see link

<https://www.micro-shop.zeiss.com/de/de/shop/filterAssistant/filtersets/489092-9110-000>

Name	Excitation	Emmision
Alexa 405	401 nm	421 nm
Alexa 430	431 nm	540 nm
Alexa 488	493 nm	520 nm
Alexa 568	576 nm	603 nm
Alexa 594	590 nm	619 nm
DAPI	358 nm	463 nm
DyLight 405	399 nm	434 nm
DyLight 488	493 nm	518 nm
DyLight 594	592 nm	616 nm
eCFP (Enhanced Cyan Fluorescent Protein)	437 nm	476 nm
eGFP (Enhanced Green Fluorescent Protein)	488 nm	509 nm
mCherry	587 nm	610 nm
mPlum	587 nm	649 nm
mRFP	585 nm	608 nm