

Materials List for:

Preparation of Meiotic Chromosome Spreads from Zebrafish Spermatocytes

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URL: <https://www.jove.com/video/60671>

DOI: [doi:10.3791/60671](https://doi.org/10.3791/60671)

Materials

Name	Company	Catalog Number	Comments
1.5 mL centrifuge tubes	Several commercial brands available		
1.5 mL microcentrifuge tube rack	Several commercial brands available		
16% formaldehyde, methanol-free	ThermoFisher Scientific	28908	
2 mL	Several commercial brands available		
24 x 50 mm glass coverslips	Corning	2980-245	
24 x 60 mm glasscoverslips	VWR International	16004-312	
50 mL conical centrifuge tubes	ThermoFisher Scientific	363696	
Autoclave bag	Several commercial brands available		Used to make plastic coverslips.
Bovine Serum Albumin (BSA)	Fisher Scientific	BP1605-100	Prepare a 100 mg/ml stock solution in sterile distilled water.
Cell Strainer, 100 µm	Fisher Scientific	08-771-19	
CF405M goat anti-chicken IgY (H +L), highly cross-adsorbed	Biotium	203775-500uL	Use at 1:1000
Chicken anti-zfSycp1	Generated by Burgess lab	N/A	Use at 1:100
Collagenase from <i>Clostridium histolyticum</i>	Sigma-Aldrich	C0130-500MG	
Coplin jar	Several commercial brands available		
DNase I, grade II from bovine pancreas	Roche Diagnostics	10104159001	
Dulbecco's Modified Eagle Medium (DMEM)	Fisher Scientific	MT10014CV	
Dumont No. 5 Forceps	Fine Science Tools	11252-30	Two are required for dissecting the testes.
Eppendorf Tubes, 5 mL	VWR International	89429-308	
Formamide	Fisher Scientific	BP228-100	
Goat anti-chicken IgY (H+L) secondary antibody, Alexa Fluor 488	ThermoFisher Scientific	A-11039	Use at 1:1000
Goat anti-chicken IgY (H+L) secondary antibody, Alexa Fluor 594	ThermoFisher Scientific	A-11042	Use at 1:1000
Goat anti-hDMC1	Santa Cruz Biotechnology	sc-8973	Does not work in our hands
Goat anti-rabbit IgG (H+L) cross-adsorbed secondary antibody, Alexa Fluor 488	ThermoFisher Scientific	A-11008	Use at 1:1000

Goat anti-rabbit IgG (H+L) cross-adsorbed secondary antibody, Alexa Fluor 594	ThermoFisher Scientific	A-11012	Use at 1:1000
Goat serum	Sigma-Aldrich	G9023-10mL	
Heparin sodium salt	Sigma-Aldrich	H3393-100KU	
Humidity chamber	Fisher Scientific	50-112-3683	
Hybridization Oven	VWR International	230401V (Model 5420)	
Incubator Shaker	New Brunswick Scientific	Model Classic C25	
KCl	Fisher Scientific	P217-500	
Kimwipes	Kimberly-Clark Professional	34155	Used for the humidity chamber
KH ₂ PO ₄	Fisher Scientific	P285-500	
Microscope	Several commercial brands available		Any standard microscope capable of at least ~1.65X magnification is sufficient.
Microscope slides	Fisher Scientific	12-544-7	
Mouse anti-hamsterSCP3	Abcam	ab97672	Does not work in our hands
Mouse anti-hMLH1	BD Biosciences	550838	Does not work in our hands
Mouse anti-hRPA	Sigma-Aldrich	MABE285	Does not work in our hands
Na ₂ HPO ₄ · 7 H ₂ O	Fisher Scientific	S373-500	
NaCl	Fisher Scientific	S271-3	
Photo-Flo 200 solution	Electron Microscopy Sciences	74257	
Plastic transfer pipettes	Several commercial brands available		
PNA TelC-Alexa647	PNA Bio Inc	F1013	Prepare as per manufacturer's instructions.
PNA TelC-Cy3	PNA Bio Inc	F1002	Prepare as per manufacturer's instructions.
ProLong Diamond Antifade Mountant	ThermoFisher Scientific	P36970	
ProLong Diamond Antifade Mountant with DAPI	ThermoFisher Scientific	P36971	
Rabbit anti-hRPA	Bethyl	A300-244A	Use at 1:300
Rabbit anti-hSCP3	Abcam	ab150292	Use at 1:200
Rabbit anti-hRad51	GeneTex	GTX100469	Use at 1:300
Sodium citrate	Fisher Scientific	S279-500	
Sucrose	Fisher Scientific	S5-500	
Supercut Scissors, 30° angle, 10 cm	Fisher Scientific	50-822-353	Can also use any pair of small scissors.
Sylgard kit	Fisher Scientific	NC9897184	Prepare as per manufacturer's instructions.
Triton X-100	Fisher Scientific	BP151-100	Dilute in sterile distilled water to make a 20% working solution. Store at room temperature. Triton X-100 forms a precipitate when diluted in water; precipitate dissolves overnight.
Trypsin	Worthington Biochemical	LS003708	
Trypsin inhibitor from chicken egg white	Sigma-Aldrich	T9253-500MG	
Tween 20	Bio-Rad	170-6531	Dilute in sterile distilled water to make a 20% working solution. Store at room temperature.

Vannas Spring Scissors - 4 mm (micro scissors)	Fine Science Tools	15018-10	
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