

Materials List for:

Laser Microirradiation to Study *In Vivo* Cellular Responses to Simple and Complex DNA Damage

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Materials

Name	Company	Catalog Number	Comments
Ti:Sapphire NIR pulsed femtosecond laser Mira-900	Coherent Inc.	Mira 900	
Inverted microscope	Carl Zeiss	Axiovert 200M	
63X/1.4 NA objective	Zeiss	APOCHROMAT Ph3	
Compact Rotation Stage	Newport Corp	PR50PP	
Temperature Controller	Warner	TC-344B	
Heating System	Ibidi	10918	
Gas Incubation System	Ibidi	11920	
Laser Power and Energy Meter (RoHS)	Coherent	FieldMaxII-TOP	
ORCA-R2 Digital CCD Camera	Hamamatsu	C10600	
LSM 510 META Laser Scanning Microscopes	Carl Zeiss		
100X/1.3 NA Zeiss Plan APO	Carl Zeiss		
35mm Gridded Dishes	MatTek	P35G-1.5-14-CGRD-D	
PtK2 kidney epithelial cells	ATCC	CCL 56	
HeLa cells	ATCC	CCL-2	
DMEM	Life Technologies	11885-092	
CO2-Independent Medium	Life Technologies	18045-088	
Advanced MEM	Life Technologies	12492-013	supplemented with L-Glutamine, 4% FBS
penicillin/streptomycin	Fisher Scientific	15140122	
L-Glutamine	Fisher Scientific	25030081	
FBS	Omega Scientific	FB-02	
Thymidine	SIGMA	T9250	
serum free media (Opti-MEM I Reduced Serum Media)	Fisher Scientific	11058021	
Anti-Cyclobutance pyrimidine dimer (CPD) (mouse)	Kamiya Biomedical Company	MC-062	
Anti-XRCC1 (mouse)	Gene Tex Inc	GTX72311	
Anti-53BP1 (rabbit)	Santa Cruz Biotech	sc-22760	
Anti-CtIP (rabbit)	Abcam	ab70163	

Anti-PAR polymers (mouse)	Enzo Life Sciences	BML-SA216-0100	
Anti-PAR (rabbit)	Trevigen	4336-BPC-100	
Anti-TRF2 (mouse)	Novus Biological	NB100-56506	
Anti 6-4PP (mouse)	Kamiya Biomedical		
Anti-Rad21 (Rabbit) (for cohesin detection)	generated in Yokomori (KY) lab		
Anti-Rad51 (Rabbit)	Santa Cruz Biotechnology	SC-8349	
Anti-Ku70 (mouse)	Novus Biologicals	NB100-102	
8-oxiguanine	Trevigen, Inc.		
Anti-PARP1 (Rabbit)	generated in KY lab		ref 43
Anti-hCAPG (Rabbit) (for condensin detection)	generated in KY lab		ref 42
Cy3 AffiniPure Donkey Anti-Rabbit IgG	Jackson ImmunoResearch Inc	711-165-152	
Donkey Anti-Mouse Alexa Fluor 488 IgG	Thermo Fisher Scientific	A-21202	
HiPerFect siRNA Transfection Reagent	Qiagen	301705	
Lipofectamine 2000 Transfection Reagent	Thermo Fisher Scientific	11668019	
GFP-SMC1 stable cell line	generated in KY lab		ref 49
GFP-NEIL2 stable cell line	generated in KY lab		ref 54
GFP-NTH1 stable cell line	generated in KY lab		ref 32
GFP-SMC1 plasmid	generated in KY lab		
GFP-Ku plasmid	generated in KY lab		
Anti-MDC1 (rabbit)	Novus Biologicals	NB100-395	
Anti-gH2AX (rabbit)	Millipore	07-164	
EGFP-53BP1(1220-1711) PtK2 stable cell line	generated in Berns lab		ref 32
TRF2-YFP PtK2 stable cell line	generated in Berns lab		ref 32
DMSO	Sigma	D2650-100ML	
PARG inhibitor	Trevigen	4680-096-03	
DNA-PKcs inhibitor NU7026	Sigma	N1537	
ATM inhibitor KU55933	Calbiochem	118500	
Olaparib	Apexbio Technology	A4154	
Paraformaldehyde	ELECTRON MICROSCOPY SCIENC MS	100503-916 (EA)	
Quantity One 1-D Analysis Software Version 4.6.9	Bio-Rad	SOFT-LIT-70-9600-Q1-469PC	image analysis program
Excel	microsoft		spreadsheet program
Triton X100	Fisher Scientific	BP151-500	detergent
Dulbecco's phosphate-buffered saline (DPBS) 10X without calcium and magnesium	Fisher Scientific	14200166	dilute to 1X