

Materials List for:

# Advanced Confocal Microscopy Techniques to Study Protein-protein Interactions and Kinetics at DNA Lesions

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## Materials

Name	Company	Catalog Number	Comments
<b>Cell cultivation</b>			
HeLa	ATCC	CCL-2TM	
ES-D3 [D3]	ATCC	CRL-11632TM	
HeLa -Fucci cells			<a href="http://ruo.mbl.co.jp/bio/e/product/fiprotein/fucci.html">http://ruo.mbl.co.jp/bio/e/product/fiprotein/fucci.html</a>
DMEM	PAN-Biotech	P03-0710	
DMEM high glucose	Sigma-Aldrich	D6429-500ML	
Fetal bovine serum (FBS)	HyClone	SV30180.03	
ES Cell FBS	Gibco	16141-079	
Non-Essential Amino Acids (NEAA)	Gibco	11140-035	
mLIF (mouse Leukemia Inhibitor Factor)	Merck Millipore	ESG1107	
MTG (1-Thioglycerol)	Sigma-Aldrich	M6145-25ML	
Penicillin-Streptomycin Solution	Biosera	XC-A4122/100	
Trypsin - EDTA	Biosera	XC-T1717/100	dilute with 1 × PBS in ratio 1:6
Nunclon cell culture dishes	Sigma-Aldrich	P7866	cultivation of mESCs D3 cells
μ-Dish 35m+A15:I35m Grid-500	Ibidi GmbH	81166	microscopic dish
0.2% Gelatine	Sigma-Aldrich	G1890-100G	dilute in destille water and autoclaved
<b>Name</b>	<b>Company</b>	<b>Catalog Number</b>	<b>Comments</b>
<b>Cell transfection</b>			
GFP-p53 plasmid	Addgene	12091	
mCherry-PCNA plasmid			generous gift from Cristina Cardoso, Technische Universität Darmstadt
mCherry-53BP1 plasmid	Addgene	19835	
Metafectene	Biontex Laboratories GmbH	T020–2.0	
10 × PBS	Thermo Fisher Scientific	AM9625	for transfection use 1 × PBS diluted in nuclease-free water
5-bromo-2'-deoxy-uridine	Sigma-Aldrich	11296736001	
<b>Name</b>	<b>Company</b>	<b>Catalog Number</b>	<b>Comments</b>
<b>Confocal microscopy</b>			
Microscope Leica TCS SP5	Leica Microsystems		
Microscope Leica TCS SP8	Leica Microsystems		

White-light laser	Leica Microsystems		
355-nm laser	Coherent Inc.		laser power 80 mW
405-nm laser	Leica Microsystems		laser power 50 mW
<b>Name</b>	<b>Company</b>	<b>Catalog Number</b>	<b>Comments</b>
<b>Immunofluorescence staining</b>			
Coverslip	VWR International Ltd	631-1580	
4% paraformaldehyde	Affymetrix	19943 1 LT	
Triton X100	MP Biomedicals	2194854	
Saponin from quillaja bark	Sigma-Aldrich	S4521	
BSA	Sigma-Aldrich	A2153	
53BP1	Abcam	ab21083	primary antibody
AlexaFluore 647	Thermo Fisher Scientific	A27040	secondary antibody
Vectashield	Vector Laboratories Ltd	H-1000	mounting medium