

Materials List for

Visualizing Single-Stranded DNA Foci in the G1 Phase of the Cell Cycle

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Materials

Name	Company	Catalog Number	Comments
Alpha-tubulin antibody	Sigma-Aldrich	T6074	primary antibody (1:5,000)
Axio Observer Inverted Microscope	Zeiss	na	microscope
Bis-Tris Plus Mini Protein Gels, 4-12%	Invitrogen	NW04127BOX	Western Blot
Bovine Serum Albumin	Jackson ImmunoResearch	001-000-162	blocking
BrdU (5-Bromo-2'-deoxyuridine)	Sigma-Aldrich	B5002-100MG	nucleotide analogue
BrdU antibody BU1/75	Abcam	ab6326	primary antibody (1:500)
CellAdhere Dilution Buffer	Stemcell Technologies	07183	coating reagent
Click-iT Plus EdU Flow Cytometry Assay Kits	Invitrogen	C10632	flow cytometry
Click-iT Plus EdU Cell Proliferation Kit for Imaging, Alexa Fluor 647 dye	Thermo Fisher Scientific	C10640	click-reaction kit
cOMplete ULTRA Protease inhibitor tablets	Sigma-Aldrich	5892791001	reagent
Countess 3 Automated cell counter	Thermo Scientific	AMQAX2000	cell counter
Coverslip	neuVITRO	GG12PRE	tissue culture
Cyclin A2 antibody	Santa Cruz Biotechnology	sc-271682	primary antibody (1:1,000) for IF and WB
Cyclin B1 antibody	Santa Cruz Biotechnology	sc-245	primary antibody (1:5,000)
Dimethyl sulfoxide (DMSO)	Sigma-Aldrich	D2650-100ML	vehicle control
DMEM, high glucose, with HEPES	Gibco	12430051	cell culture medium for RPE cells
DPBS, no calcium, no magnesium	Gibco	14190144	the PBS used throughout the protocol
D-Sucrose	Thermo Fisher Scientific	bp220-1	reagent
Eclipse Ti2 Series Epifluorescent Microscope	Nikon	na	microscope
EdU (5-Ethynyl-2'-deoxyuridine)	Thermo Fisher Scientific	C10637	nucleotide analogue
Falcon 24-well plate	Corning	351147	tissue culture

Falcon Cell Culture Dishes 100 mm	Corning	353003	tissue culture
Fetal Bovine Serum, heat inactivated	Gibco	16140071	media supplement
Fiji (ImageJ)	NIH	version 1.54f	software and algorithms
FxCycle PI/RNase Staining Solution	Invitrogen	F10797	PI staining
Goat anti-mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 555	Thermo Fisher Scientific	A21422	secondary antibody (1:1,000)
Goat anti-rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488	Thermo Fisher Scientific	A48262	secondary antibody (1:1,000)
Histone H3 antibody	Abcam	ab1791	primary antibody (1:10,000)
hTERT RPE1	ATCC	CRL-3216	cell line
Hydrochloric acid	Sigma-Aldrich	H1758-100ML	reagent
Hydrogen peroxide 30% solution	Sigma-Aldrich	H1009-100ML	reagent
Hydroxyurea, 98% powder	Sigma-Aldrich	H8627-5G	reagent
Invitrogen Ultra Pure 0.5 M EDTA pH 8.0	Thermo Fisher Scientific	15-575-020	reagent
Lipfectamine RNAiMAX Transfection Reagent	Invitrogen	13778150	transfection reagent
Magnesium chloride solution 1 M	Sigma-Aldrich	M1028-100ML	reagent
MycroFluor	Thermo Fisher	M7006	Mycoplasma Detection Kit
Neocarzinostatin from Streptomyces carzinostaticus	Sigma-Aldrich	N9162-100UG	reagent
NuPage MES SDS Running Buffer (20x)	Invitrogen	NP0002	Western Blot
onTARGETplus Human RPA2 siRNA	Dharmacon	L-017058-01-0005	siRNA
p27 antibody	BD Biosciences	610241	primary antibody (1:1,000)
Paraformaldehyde aqueous solution (32%)	Electron Microscopy Sciences	50-980-494	fixative
PARP1 antibody	Cell Signaling Technology	9542S	primary antibody (1:1,000)
PCNA antibody	Cell Signaling Technology	13110S	primary antibody (1:2,000)
Penicillin-Streptomycin	Gibco	15140163	media supplement
pH3 antibody	Cell Signaling Technology	3377S	primary antibody (1:2,000)
PhosSTOP phosphatase inhibitor tablets	Sigma-Aldrich	4906837001	reagent
PIPES Buffer 0.5 M solution, pH 7.0	Bioworld	41620034-1	reagent
Precision Plus Protein Kaleidoscope Prestained Protein Standards	Bio-Rad	1610395	Western Blot
Prism	GraphPad	version 10	statistical analysis and graph
ProLong Diamond Antifade Mountant	Thermo Scientific	P36961	mounting media
Reduced serum media (Opti-MEM)	Gibco	31985070	used for transfection
Rpa32/rpa2 antibody (mouse)	EMD Millipore	NA19L	primary antibody (1:1,000) for WB
Rpa32/rpa2 antibody (rat)	Cell Signaling Technology	2208S	primary antibody (1:1,000) for IF
Sodium Chloride solution (5 M)	Sigma-Aldrich	S5150	reagent
Sodium Pyruvate (100 mM)	Gibco	11360070	media supplement
Sodium tetraborate decahydrate	Sigma-Aldrich	B3535-500G	reagent
Thermo Scientific Pierce DAPI Nuclear Counterstain	Thermo Scientific	62248	nucleic acid stain
Thymidine, powder	Sigma-Aldrich	T1985-1G	reagent
Triton X-100 aqueous solution (10%)	Sigma-Aldrich	11332481001	detergent
Trypsin-EDTA (0.5%), no phenol red	Gibco	1540054	cell dissociation agent
Vitronectin XF	Stemcell Technologies	07180	coating reagent

ZE5 Cell Analyzer	Bio-Rad	na	flow cytometry
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