

Materials List for:

## Quantitation of $\gamma$ H2AX Foci in Tissue Samples

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URL: <https://www.jove.com/video/2063>

DOI: [doi:10.3791/2063](https://doi.org/10.3791/2063)

### Materials

Name	Type	Company	Catalog Number	Comments
Bovine Serum Albumin (BSA)		Sigma-Aldrich	A7906	BSA (1%) is used to block any non-specific antibody binding. Primary and secondary antibodies are diluted in BSA.
PBS (without Ca <sup>2+</sup> and Mg <sup>2+</sup> )		Invitrogen	17-517Q	
Optimal Cutting Temperature (OCT) Compound 4583		Tissue-Tek	4583	
Superfrost Plus	Polysine slides	Menzel-Glaser	SF41296SP	Electrostatically attracts frozen tissue sections and reduces the need for additional coatings and adhesives.
Tween 20	Reagent	Calbiochem	655205	Tween 20 (0.5%), is a detergent to permeabilise cells
Triton X-100	Reagent	Sigma-Aldrich	T8787	Triton X-100 (0.1%) used to permeabilise cells.
Paraformaldehyde	Reagent	Sigma-Aldrich	158127	
Anti-phospho- $\gamma$ H2AX (rabbit polyclonal antibody)	Primary Antibody	Upstate, Millipore	07-164	Dilution of primary antibody (1:500), in 1% BSA.
Alexa Fluor 488 goat anti-rabbit IgG (H+L)	Secondary Antibody	Invitrogen	A-11008	Dilution of secondary antibody (1:500), in 1% BSA.
Ethanol (70%)		Thermo Fisher Scientific, Inc.	BSPEL316	
RNAse A	Reagent	Qiagen	19101	
Vectashield PI	Reagent	Vector Laboratories	H-1300	A glycerol based mounting medium containing propidium iodide (a red nuclear stain). This medium must be used with an oil based lense that matches its refractive index. Note: DNA stain commonly used: 4,6-diamidino-2-phenylindole dihydrochloride (DAPI). Can only be used with

				microscopes with the appropriate excitation laser.
Mini PAP Pen		Invitrogen	008877	
Coverslips (22x50mm)		Menzel-Glaser	CS2250100	
Coplin Jar, glass		Grale Scientific P/L	1771-OG	
Staining Trough		Grale Scientific P/L	V1991.99	
Zeiss LSM 510 Meta Confocal		Confocal Microscope		
CM Leica 1950 Cryostat		Leica Microsystems		
Metamorph	Software for Imaging analysis	Molecular Devices		