

# The Micronucleus Assay on Cryopreserved Whole Blood

 Renu Dayal<sup>1</sup>, Elien Beyls<sup>1</sup>, Anne Vral<sup>1</sup>, Ans Baeyens<sup>1</sup>
<sup>1</sup>Radiobiology group, Department of Human Structure and Repair, Ghent University

## Corresponding Author

 Ans Baeyens  
 Ans.Baeyens@Ugent.be

## Citation

 Dayal, R., Beyls, E., Vral, A., Baeyens, A. The Micronucleus Assay on Cryopreserved Whole Blood. *J. Vis. Exp.* (2024), e65855, doi:10.3791/65855 (2024).

## Date Published

February 23, 2024

## DOI

10.3791/65855

## URL

jove.com/video/65855

## Materials

Name	Company	Catalog Number	Comments
15 mL centrifuge tubes	Greiner	188271	
24-well cell suspension plate	VWR	734-2779	
96% alcohol	ChemLab	CL00.1807.2500	
Acetic acid	Merck life science	8,18,75,52,500	
Acridine orange	Merck life science	235474-5g	
CaCl <sub>2</sub>	Merck life science	C5670-100g	
cover slips	VWR	631-1365	22 x 50
Cryobox (Mr.Frosty)	Nalgene, Sigma Aldrich		
Cryovials 2ml	Novolab	A04573	
Cytochalsin B	Merck life science	C6762-10	10 mg
Dimethyl sulphoxide (DMSO)	Merck life science	D4540-500ml	
Fetal calf serum (FCS)	Thermo Fischer scientific	10270-106	
Fixative 1			Methanol/acetic acid/ringer in a ratio of 4:1:5
Fixative 2			Methanol/acetic acid in a ratio of 4:1
GURR buffer	Thermo Fischer scientific	10582013	phosphate buffer (pH 6.8)
KCl	Merck life science	1,04,93,60,250	75 mM
KH <sub>2</sub> PO <sub>4</sub>	Merck life science	1,04,87,30,250	
Li-heparin tubes	BD Life sciences	367526-LH170 I.U.	BD Vacutainer
Methanol	fisher scinetific	M/4000/17	
Na <sub>2</sub> HPO <sub>2</sub>	Merck life science	10,65,80,500	
NaCl	Merck life science	S7653-1kg	
Object slides	VWR	MENZA00000112E04	
Penicillin/Streptomycin	Thermo Fischer scientific	15140-122	10,000 U/mL + 10,000 µg/mL
Phytohemagglutinin (PHA-M)	Thermo Fischer scientific	10576-015	
Ringer solution			contains NaCl, KCl, CaCl <sub>2</sub> dissolved in distilled water
RPMI-1640	Thermo Fischer scientific	52400041	
Silicon rubber adhesive sealent	collall	CF-100	
Sodium pyruvate	Thermo Fischer scientific	11360039	

Sterile warm PBS (37 °C)			contains NaCl, Na <sub>2</sub> HPO <sub>2</sub> , KH <sub>2</sub> PO <sub>4</sub> dissolved in distilled water
β-mercaptoethanol	Thermo Fischer scientific	31350-010	