富尔根染色实验报告

一、实验器材及试剂

1、 实验器材

名称	厂家	型号
脱水机	DIAPATH	Donatello
包埋机	武汉俊杰电子有限公司	JB-P5
病理切片机	上海徕卡仪器有限公司	RM2016
冻台	武汉俊杰电子有限公司	JB-L5
组织摊片机	浙江省金华市科迪仪器设备有限公司	KD-P
烤箱	天津市莱玻瑞仪器设备有限公司	GFL-230
载玻片	Wanwu	G6004
正置光学显微镜	日本尼康	NIKON ECLIPSE E100
成像系统	日本尼康	NIKON DS-U3

2、 主要实验试剂

试剂名称	厂家	货号
无水乙醇	国药集团化学试剂有限公司	100092683
二甲苯	国药集团化学试剂有限公司	10023418
富尔根染液套装	Wanwu	G1048
盐酸	国药集团化学试剂有限公司	10011008
中性树胶	国药集团化学试剂有限公司	10004160

二、实验步骤

1、石蜡切片脱蜡至水：依次将切片放入二甲苯I20min-二甲苯II20min-无水乙醇I5min-无水乙醇II5min-75%酒精 5min，自来水洗。

2、取适量富尔根染液 A，一半置于 60℃烤箱加盖预热 15min，一半置于常温并加盖。切片先浸入常温富尔根染液 A 中 5s，再浸入 60℃烤箱内的富尔根染液 A 中，加盖并在 60℃烤箱中处理 30min，取出切片浸入常温富尔根染液 A 中 5s，入 3 缸纯水浸洗，各 5s。

3、切片（已恢复至室温）浸入富尔根染液 B 中加盖避光浸染 90min，不经水洗，直接依次入 2 缸富尔根染液 C 浸洗，2min/次，取出切片，流水冲洗 5min；

4、切片入富尔根染液D复染1s，依次入3缸无水乙醇脱水，各5s、5s、30s；

5、透明封片：切片入二甲苯I5min -二甲苯II5min透明，中性树胶封片。

6、显微镜镜检，图像采集分析。

三、结果判读：

核DNA呈紫红色，细胞质和其他成分呈淡绿色。

四、注意事项：

1、富尔根染液B染色前要用蒸馏水洗干净，染色时要避光。
2、富尔根染液D染色时，要边染边看，背景不能太深也不能过浅。

Feulgen Staining Experiment Report

I. Experimental equipment and reagents

1. Experimental equipment

Equipment name	Manufacturer	Model No.
Dehydrator	DIAPATH	Donatello
Embedding center	Wuhan Junjie Electronics Co., Ltd.	JB-P5
Pathological microtome	Shanghai Leica Instrument Co., Ltd.	RM2016
Cooling plate	Wuhan Junjie Electronics Co., Ltd.	JB-L5
Tissue spreading water bath	Zhejiang Jinhua Kedi Instrumental Equipment Co., Ltd.	KD-P
Oven	Tianjin Leibo Terry Equipment Co., Ltd.	GFL-230
Microscope slide	Wanwu	G6004
Upright electron microscope	JAPAN NIKON	NIKON ECLIPSE E100
Imaging system	JAPAN NIKON	NIKON DS-U3

2. Main experiment reagents

Reagent name	Manufacturer	Item No.
Anhydrous ethanol	Sinopharm Chemical Reagent Co., Ltd.	100092683
Xylene	Sinopharm Chemical Reagent Co., Ltd.	10023418
Feulgen staininge solution suit	Wanwu	G1048
Hydrochloric acid	Sinopharm Chemical Reagent Co., Ltd.	10011008
Neutral balsam	Sinopharm Chemical Reagent Co., Ltd.	10004160

II. Experimental procedure

1. Deparaffinize the paraffin sections to water: Xylene I for 20min - Xylene II for 20min - Anhydrous ethanol I for 5min - Anhydrous ethanol II for 5min - 75% Ethyl alcohol for 5min , wash with tap water.

2. Take an appropriate amount of Fuergen staining solution A, half in 60°C oven with lid to preheat for 15 minutes, half at room temperature and covered. Immerse the slides first in room

temperature Fuergen staining solution A for 5s, then immerse in 60℃ Fuergen staining solution A in oven, covered and treated in 60℃ oven for 30min. Take out the slides and immerse in room temperature Fuergen staining solution A for 5s, then dip into 3 jars of pure water to wash, 5s each.

3. Immerse the slides (return to room temperature) in Fuergen staining solution B, covered and protected from light to stain for 90 minutes. Without water washing, directly dip and wash in 2 jars of Fuergen staining solution C, 2min/each time. Then take out the slides, rinse with running water for 5min.

4. Put the slides into Fuergen staining solution D for counterstaining for 1s, and then put into 3 jars of anhydrous ethanol for dehydration in sequence for 5s, 5s and 30s respectively.

5. Transparency and sealing: Put the sections in Xylene I for 5min - Xylene II for 5min for transparency, seal with neutral balsam.

6. Microscope inspection, image acquisition and analysis.

III. Interpretation of results:

Nuclear DNA is purplish red, and the cytoplasm and other components are pale green.

IV. Precautions:

1. The Fuergen staining solution B should be washed with distilled water before staining, and should be protected from light during staining.
2. When staining with Fuergen staining solution D, you should watch it while staining, and the background should not be too dark or too light.