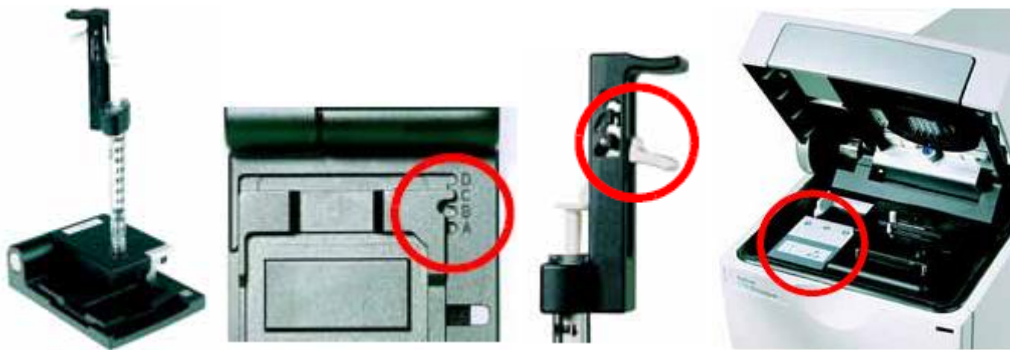

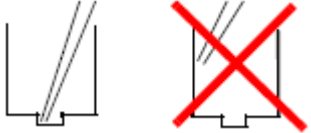





安捷伦 2100 生物分析仪简要操作说明

1. 启动电脑，登陆系统。
2. 开生物分析仪电源(位于后侧底部)，等待正面右上方状态灯显示绿色。
3. 双击电脑桌面上“2100 Expert”图标，进入 Instrument 主界面，确认 COM Port 选择正确，左侧仪器示意图清晰显示(表示通讯正常)。
4. 按照试剂盒操作说明准备好注胶平台(**注射器安装是否足够紧固以及注胶平台密封性是否完好，对于实验成功至关重要!**):



5. 按照试剂盒说明将 2100 生物分析仪芯片槽的类型选择推杆推到正确位置(1 - 电泳, 2 - 细胞)。
6. 按照试剂盒说明将芯片混匀仪转速设到正确位置(一般为 2400rpm)。
7. 取出试剂盒，平衡到室温约 30 分钟，注意避光。准备凝胶和染料的混合物，染料用完立即放回试剂盒避光。(请参照相应试剂盒说明，注意离心过滤和混合的先后顺序以及离心转速的不同)
8. 取出 9ul(核酸)或 12ul(蛋白)凝胶染料混合物，加入电泳芯片的注胶孔  (**注意不要接触芯片底部，往芯片孔中加液时伸入底部不要靠壁!**)
9. 将芯片放入注胶平台，拉动注射器推杆至 1ml 刻度并扣紧上盖，压下推杆至固定架卡扣，计时(时间参考试剂盒说明)，到时间松开固定架卡扣，等待注射器推杆停止运动后将其缓慢拉回至 1ml 刻度，松开注胶平台上盖。
10. 从注胶平台取出芯片，并往右上方两个注胶孔  各加入 9ul(核酸)或 12ul(蛋白)凝胶染料混合物。(对于蛋白实验还要取 12ul 去染色试剂至 **DS** 孔中)。
11. 往电泳芯片上数字标记的样品孔及 Ladder 孔  中各加入 5ul Marker。(蛋白实验不需要加 Marker 直接加 6ul 样品或稀释的 Ladder 并忽略下一步，对于 RNA Pico 试剂盒还要往 **CS** 孔中加入 9ul Conditioning Solution)

12. 往 Ladder 孔  中加入 1ul Ladder，数字标记的样品孔中各加入 1ul 样品(RNA 样品和 Ladder 以及蛋白样品的变性处理请参考相应试剂盒说明)。
13. 将加好样品的电泳芯片放入芯片混匀仪卡槽，**注意方向以保证卡紧并用手指按压确保芯片放置平稳**，旋混 1 分钟，**混匀完成后 5 分钟之内要开始分析**。
14. 打开 2100 生物分析仪顶盖，放入混匀后的芯片，轻轻关上顶盖。2100 Expert 软件 Instrument 操作界面上识别到已装入芯片，点击 Assays 选择相应的实验类型，设定数据保存路径，点击 Start 开始运行。**运行中勿触碰仪器并避免台面震动**。



The screenshot shows the 2100 Expert software interface with several key sections highlighted by red boxes and numbered instructions:

- Instrument Identification:** A photo of the DNA Chip is shown on the left. To its right, fields for Name, Serial#, Cartridge, Vendor, and Product ID are visible. A red box highlights the 'Simulation Mode' firmware status with the instruction: "3. 确认芯片已被识别。"
- COM Port:** A dropdown menu is set to '1', with a red box and instruction: "1. 确保选定正确端口。"
- Assay Selection:** The 'Assays' button is highlighted with a red box and instruction: "2. 点击选择试验类型。"
- Start Button:** The 'Start' button is highlighted with a red box and instruction: "7. 点击开始运行。"
- Assay File:** The file path 'C:\...sis\Demo DNA 7500 Series II.xs...' is highlighted with a red box.
- Destination and Data Acquisition Parameters:** The 'Default' radio button is selected. The file path 'C:\...ilent\2100 bioanalyzer\2100 expert\Data\2009-05-20' is highlighted with a red box and instruction: "5. 设置数据保存路径以及文件名前缀。"
- File Prefix:** The text '2100 expert' is entered in the field, highlighted with a red box.
- Run sample:** The range '1 to 12' is set in the spinner controls, highlighted with a red box.
- Assay Details:** The 'Assay Class' is set to 'DNA 7500', highlighted with a red box.
- Start Run Checklist:** A list of seven items is shown, all with green checkmarks. A red box highlights the entire checklist with the instruction: "4. 检查所有前提条件已经满足。"
- Chip Summary Table:** A table with columns for Sample Name, Sample Comment, Rest. Digest, and Observation. The first row is 'ladder 1'. A red box highlights the table with the instruction: "6. 填写样品名，也可直接开始，数据获取后可以更改样品名。"

15. 数据采集完毕用 Electrode Cleaner 装纯水清洗电极。(RNA 实验前后均须用 RNase Zap 和无酶水清洗，具体操作步骤见 Maintenance and Troubleshooting Guide)
16. 打开 Data 操作界面，调用数据，软件将自动运算并显示结果，点击 Result Flagging 子界面设定结果颜色标记的规则，点击 Print 图标生成报告。

The screenshot shows the 'Electropherogram - Ladder 1' software interface. The main window displays two electropherogram plots. A 'Result Flagging' dialog box is open, showing a table of fragments to search for and options to specify results. A 'Print' dialog box is also open, showing options to print various items and save to file. Chinese annotations are present throughout the image, providing instructions on how to use the software.

Annotations in the image include:

- 1. 点击打开数据 (Click to open data)
- 2. 设定结果标记规则 (Set result marking rules)
- 3. 点击生成报告 (Click to generate report)
- 4. 应用设定的规则 (Apply the set rules)
- 5. 点击Save生成PDF报告 (Click Save to generate PDF report)

The 'Result Flagging' dialog box contains the following information:

1. Specify the fragments to search for

Index	Fragment Size [bp]
1	100
2	200

2. Specify options

in a tolerance of 5 percent

3. Specify results

The samples that contain the specified fragments

Shall be colored: Change...

Shall be labelled: Sample contains 100bp and 200bp fragments

All other samples

Shall be colored: Change...

Shall be labelled: All Other Samples

The 'Print' dialog box contains the following information:

Print Item

Run Summary Electropherogram Calibration Curve Run Logbook

Assay Details Gel Like Standard Curve

Result Tables

Wells

All Wells

Wells [1,4-9,12]

Options

2 per page

Exclude Marker

Include Ladder

Save To File

PDF File Path: C:\...2100 expert\Data\Demo DNA 1000 Series II.pdf

4. 勾选PDF并选择路径

5. 点击Save生成PDF报告

2100 生物分析仪的维护:

1. 镜头污染时用专用拭镜纸蘸少量酒精或异丙醇挤掉多余液滴后轻轻擦拭;
2. 电极严重污染时需要取下清洗, 方法详见 Maintenance & Troubleshooting Guide;
3. 注胶平台密封性差时需要更换密封圈, 为保证密封性请在每次开启新的芯片盒时更换新的随附注射器。