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细胞凋亡与坏死检测试剂盒

产品编号	产品名称	包装
C1056	细胞凋亡与坏死检测试剂盒	100次

产品简介：

- 碧云天的细胞凋亡与坏死检测试剂盒(Apoptosis and Necrosis Assay Kit)为您提供了一种经典而又快速简便的细胞凋亡与细胞坏死检测方法。
- 本试剂盒采用Hoechst 33342和碘化丙啶(Propidium Iodide，PI)双染的方法。细胞发生凋亡时，染色质会固缩。Hoechst 33342可以穿透细胞膜，染色后凋亡细胞荧光会比正常细胞明显增强。碘化丙啶(PI)不能穿透细胞膜，对于具有完整细胞膜的正常细胞或凋亡细胞不能染色。而对于坏死细胞，其细胞膜的完整性丧失，碘化丙啶(PI)可以染色坏死细胞。上述两种染料双染后，使用流式细胞仪或荧光显微镜检测时，正常细胞为弱红色荧光＋弱蓝色荧光，凋亡细胞为弱红色荧光＋强蓝色荧光，坏死细胞为强红色荧光＋强蓝色荧光。参考下图，左图为诱导凋亡前的正常细胞，右图为诱导凋亡后的细胞。

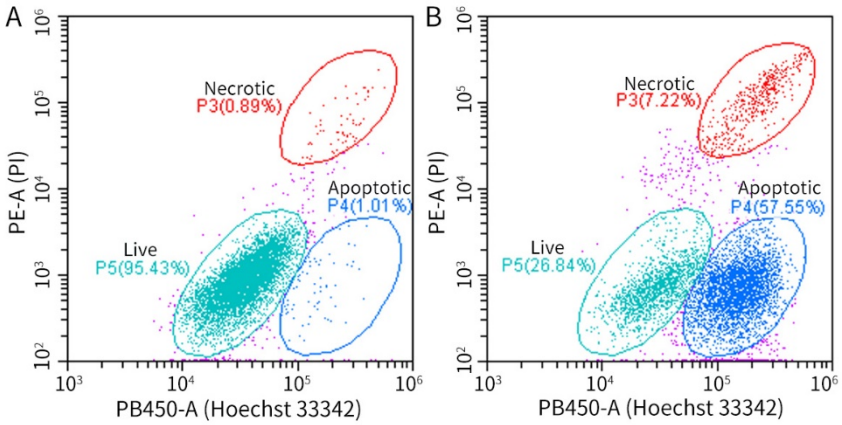

图1. 碧云天细胞凋亡与坏死检测试剂盒(C1056)染色Jurkat细胞流式细胞仪检测效果图。正常Jurkat细胞(图A)及用紫外照射5分钟并继续培养4小时的Jurkat细胞(图B)，用本试剂盒中的Hoechst染色液和PI染色液进行双染。从图中可以看出，对于正常细胞，细胞核呈弱红色荧光＋弱蓝色荧光(图A)。经紫外照射诱导后的早期凋亡细胞，染色质固缩，其荧光强度会比正常细胞明显增大。对于晚期凋亡细胞和坏死细胞，细胞膜完整性丧失，可被PI染色，呈强红色荧光+强蓝色荧光(图B)。出现的非预期的细胞点完全在许可的误差范围内。实测数据可能会因细胞类型、细胞凋亡情况、检测仪器等的不同而存在差异，图中数据仅供参考。

- Hoechst 33342的最大激发波长为346nm，最大发射波长为460nm；Hoechst 33342和双链DNA结合后，最大激发波长为350nm，最大发射波长为461nm。PI结合DNA形成复合物的最大激发光波长为535nm，最大发射光波长为617nm。PI通常通过488nm激光激发，也可以使用其他的激光如532和561nm激光激发。
- 染色快速方便，两种染料的染色仅需20-30分钟，一步染色即可完成。
- 使用方便，使用流式细胞仪检测时，无需稀释等配制过程，也无需再准备其它任何溶液。
- 本试剂盒足够检测100个样品，每个样品的细胞数量可以为10-100万。

包装清单：

产品编号	产品名称	包装
C1056-1	细胞染色缓冲液	100ml
C1056-2	Hoechst染色液	0.5ml
C1056-3	PI染色液	0.5ml
—	说明书	1份

保存条件：

4°C保存六个月有效，-20°C保存一年有效。Hoechst染色液和PI染色液需避光保存。

注意事项：

- 需使用流式细胞仪进行红色和蓝色双荧光检测。也可使用荧光显微镜检测。

- 染色后宜尽快检测。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明：

1. 每个样品收集约10-100万细胞于1.5ml离心管内，离心弃上清。细胞沉淀用0.8-1毫升细胞染色缓冲液重悬。
2. 加入5微升Hoechst染色液。
3. 加入5微升PI染色液。
4. 混匀，冰浴或4°C孵育20-30分钟。
5. 用流式细胞仪检测红色荧光和蓝色荧光。
6. 如果使用荧光显微镜检测，检测前离心沉淀细胞，用PBS洗涤一次，再涂片观察红色荧光和蓝色荧光。对于贴壁细胞使用荧光显微镜检测，可以不收集细胞，直接依次按照上述比例加入细胞染色缓冲液、Hoechst染色液和PI染色液冰浴或4°C染色20-30分钟。染色后PBS洗涤一次，再在荧光显微镜下观察。

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