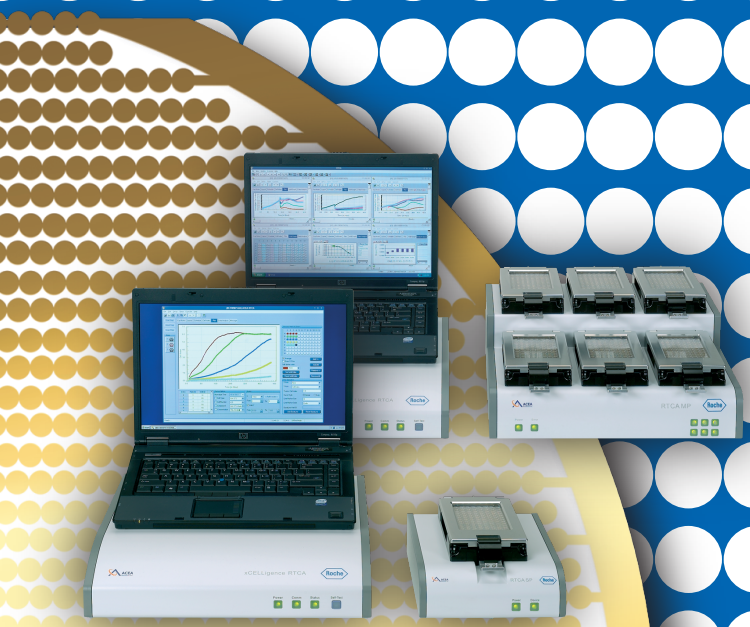
xCELLigence System

实时、无标记、高通量细胞分析系统

集合了分子生物学、细胞生物学与微电子方法学，突破了传统终点法细胞分析技术的瓶颈，为细胞学基础研究和药物研发提供了新型的、高通量筛选和检测平台。



性 能

- 轻松检测从数分钟到数周细胞效应
- 高精确性和高重复性，提供更大的动态检测范围
- 灵活性高、易操作，软件友好直观

应用领域

- 细胞增殖
- Compound介导的细胞毒作用
- G蛋白偶联受体活性

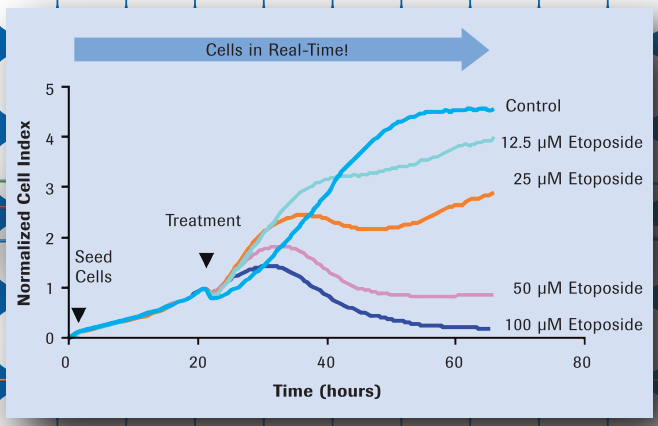
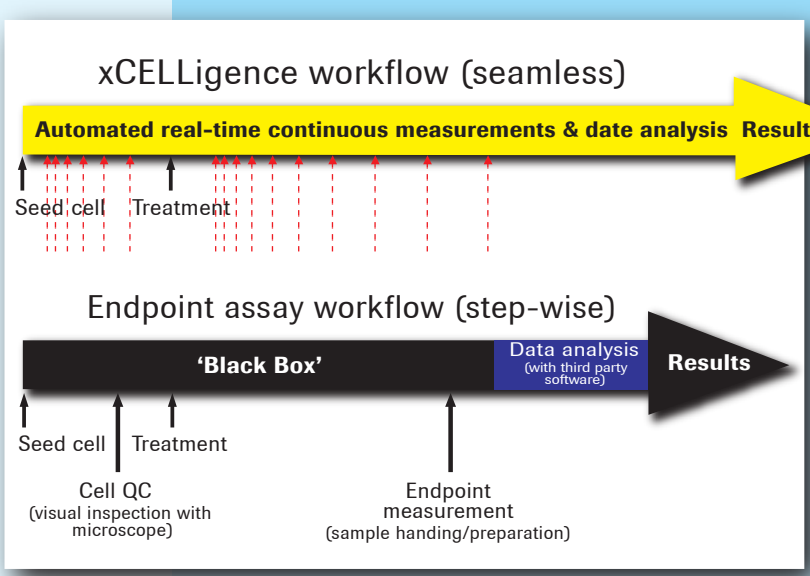
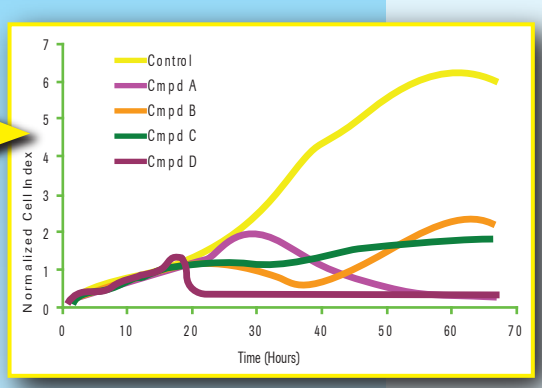


Figure 1: Real-time monitoring of cytotoxicity
through DNA damage (Etoposide i.e. DNA damaging
while at lower concentrations it leads to S-Phase and/or
arr





▲ 化合物效应曲线图谱

◀xCELLigence创新检测技术完全消除了传统终点法检测过程可能存在的“黑箱”问题

The xCELLigence system provides dynamic, real-time cell-based assays without the use of labels. The assays provide valuable data that traditional end-point analysis can't, leading to faster assay development and improved attrition rates. The assays offer several throughput options, from 16 to 576 (6x96) wells run simultaneously.

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In summary, the RT-CES method based on electrical impedance measurement can provide real-time assessment of the cytotoxic activity induced by particulate matter without interference form the insoluble particles. The fully automated measurement without any labeling materials and reagents is potentially useful of large scale screening of particle-induced cytotoxicity. This provides a unique approach for biomonitoring of air quality as demonstrated by the SRM testing results.

***Analyst*, 2008, 133, 643–648 | 643**

By dynamically measuring the response of the cells to chemotherapy using the RT-CES system, we identified that 6 to 8 h following etoposide treatment was the critical time to determine the cell death or cell survival.

***Mol Cancer Ther* 2007; 6 (12). December 2007**

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(实时细胞分析系统用于化合物高通量筛选)