

Title (en)

REAL-TIME ELECTRONIC CELL SENSING SYSTEM AND APPLICATIONS FOR CYTOTOXICITY PROFILING AND COMPOUND ASSAYS

Title (de)

ELEKTRONISCHES ECHTZEIT-ZELLENERFASSUNGSSYSTEM UND ANWENDUNGEN FÜR DIE CYTOTOXIZITÄTSPROFILIERUNG UND ZUSAMMENGESETZTE ASSAYS

Title (fr)

SYSTEMES DE DETECTION DE CELLULES ELECTRONIQUES EN TEMPS REEL ET APPLICATIONS EN MATIERE DE PROFILAGE DE CYTOTOXICITE ET DOSAGES DE COMPOSES

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Application

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Abstract (en)

[origin: WO2005077104A2] The present invention includes devices, systems, and methods for assaying cells using cell-substrate impedance monitoring. In one aspect, the invention provides cell-substrate impedance monitoring devices that comprise electrode arrays on a nonconducting substrate, in which each of the arrays has an approximately uniform electrode resistance across the entire array. In another aspect, the invention provides cell-substrate monitoring systems comprising one or more cell-substrate monitoring devices comprising multiple wells each having an electrode array, an impedance analyzer, a device station that connects arrays of individual wells to the impedance analyzer, and software for controlling the device station and impedance analyzer. In another aspect, the invention provides cellular assays that use impedance monitoring to detect changes in cell behavior or state. The methods can be used to test the effects of compounds on cells, such as in cytotoxicity assays. Methods of cytotoxicity profiling of compounds are also provided.

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