

Title (en)

SYSTEMS, METHODS AND COMPOSITIONS FOR ENHANCING THE SPECIFICITY OF NUCLEIC ACID HYBRIDIZATION

Title (de)

SYSTEME, VERFAHREN UND ZUSAMMENSETZUNGEN ZUR VERBESSERUNG DER SPEZIFITÄT VON NUKLEINSÄUREHYBRIDISIERUNG

Title (fr)

SYSTÈMES, MÉTHODES ET COMPOSITIONS POUR AMÉLIORER LA SPÉCIFICITÉ DE L'HYBRIDATION DES ACIDES NUCLÉIQUES

Publication

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Application

EP 16874070 A 20161212

Priority

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Abstract (en)

[origin: WO2017100792A1] Systems, methods and compositions of matter according to the present invention, can be used in capture/enrichment, gene expression profiling and targeted sequencing. Provided are systems, methods and compositions concerning the enhancement of nucleic acid hybridization specificity and controlling the shapes of melting curves revealed by nucleic acid hybrid pairs to optimize nucleic acid analysis. These systems, methods and compositions comprise producing a positively charged surface or surface coating, on the surface of microarray slides or other types of surfaces similarly purposed, which enhances melting curve analysis to the point of allowing detection or differentiation of small changes in sequences between nucleic acid binding partners. The accuracy or resolution of melting curve analysis was to be sufficient to distinguish between the melting of perfect matched dsDNA and dsDNA with the smallest possible change in sequence, a one base pair mismatch.

IPC 8 full level

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C-Set (source: EP)

1. **C12Q 1/6832** + **C12Q 2523/31** + **C12Q 2527/107**
2. **C12Q 1/6837** + **C12Q 2523/31**

Citation (search report)

- [I] WO 03006675 A2 20030123 - BAYLOR COLLEGE MEDICINE [US]
- [XI] WO 2012142346 A1 20121018 - REAL TIME GENOMICS LLC [US], et al
- [I] ARNOLD VAINRUB ET AL: "Surface electrostatic effects in oligonucleotide microarrays: Control and optimization of binding thermodynamics", BIOPOLYMERS, 1 February 2003 (2003-02-01), New York, pages 265 - 270, XP055133705, Retrieved from the Internet <URL:http://onlinelibrary.wiley.com/doi/10.1002/bip.10271/abstract> DOI: 10.1002/bip.10271
- See references of WO 2017100792A1

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