Title (en)

IN VITRO METHOD OF DETERMINING CHANGES IN A PROTEIN ENVIRONMENT

Title (de)

IN-VITRO-VERFAHREN ZUR BESTIMMUNG DER ÄNDERUNGEN IN EINER PROTEINUMGEBUNG

Title (fr)

PROCÉDÉ POUR DÉTERMINER DES CHANGEMENTS IN VITRO DANS UN ENVIRONNEMENT PROTÉIQUE

Publication

EP 2483666 A1 20120808 (EN)

Application

EP 10762851 A 20101004

Priority

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- US 2010051316 W 20101004

Abstract (en)

[origin: WO2011041779A1] An in vitro method of determining changes in a protein environment. The method comprises selecting a protein of interest, placing a first sample of the protein in a spectroflurometer such that the protein sample may be irradiated with frequency modulated exciting light and the emitted light is detected; obtaining a reference set of light measurements at a selected frequency by measuring the change in phase angle (F) between emitted light and excited light and also simultaneously recording the change in signal modulation (m); applying time domain equations or frequency domain equations of the reference set of light measurements to obtain a reference data set; obtaining at least a second set of light measurements at the selected frequency for the protein; applying a time domain equations or frequency domain equations of the second set of light measurements to obtain a second data set; plotting S vs G for the reference data set and the second data set; and, determining whether the protein environment underwent changes between the reference measurement and second measurement by observing if a change in the position of the generated plot points. The spectroflurometer needs a light source which can cause a protein to fluoresce and a device for detecting and measuring the emitted light from the protein. The light source needs to be modulated in the frequency domain or time domain. Changes between the reference measurement and the second measurement are selected from the group consisting of: a) the same protein sample at a different time; and b) the protein in a different milieu. The changes in the protein environment is a conformational change of a single protein, changes in protein-protein interactions and/or changes in protein-excipient interactions.

IPC 8 full level

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CPC (source: EP)

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See references of WO 2011041779A1

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