CLAIMS

1. A method for detecting at least one analyte in at least one sample comprising the following steps:

a) bringing together a sample to be analysed and the spot or spots of a compartment of a solid support, said spot or at least one of said spots comprising at least one resistant control marker and at least one analyte-capture ligand,

b) bringing together the spot or spots of said compartment and at least one analyte-detecting ligand, said analyte-detecting ligand being coupled with a direct or indirect detection marker,

c) when at least one analyte-detecting ligand is coupled with an indirect detection marker, bringing together the spot or spots of said compartment and a reporter of said indirect detection marker,

d) when the reporter used in step c) is coupled with an indirect detection marker, bringing together the spot or spots of said compartment and a reporter of the indirect detection marker coupled with said reporter used in step c),

e) detecting at least one signal produced by at least one resistant control marker in said compartment,

f) defining at least one reading grid from the location of at least one signal detected in step e),

g) detecting a signal produced by at least one detection marker of an analyte-detecting ligand, and

h) reading the signal detected in step g) on the reading grid defined in step f),

the steps a) to d) being implemented before steps e) to h),

said resistant control marker being a marker, from which a signal is detected at the end of an analysis process,

said resistant control marker being a fluorophore selected from the group consisting of a coumarin, a rhodamine, a carbopyronine, an oxazine, benzopyrylium, a phycoerythrin and their derivatives.

2. The method according to claim 1, characterised in that the signal produced by at least one detection marker of an analyte-detecting ligand is a luminescent signal.

3. The method according to claim 1 or claim 2, characterised in that said resistant control marker, said resistant control markers or one of said resistant control markers is a fluorophore, the excitation spectrum of which does not cover the emission spectrum of the signal emitted by or corresponding to the detection marker of said analyte-detecting ligand or of said analyte-detecting ligands and the emission spectrum of which does not cover or covers partially the emission spectrum of or

corresponding to the detection marker of said analyte-detecting ligand or of said analyte-detecting ligands.

4. The method according to any one of the claims 1 to 3, characterised in that:

- the signal produced by at least one detection marker of an analyte-detecting ligand is the light emitted by a chemiluminescent compound obtained by reaction of a peroxidase with luminol, an analogue of luminol and/or a derivative of luminol or an analogue of luminol, and

- the signal produced by the resistant control marker or resistant control markers is a light emitted outside the wavelengths going from 375 nm to 550 nm.

5. The method for selecting a resistant control marker,

said resistant control marker being a control marker, from which a signal is detected at the end of an analysis process,

said resistant control marker being a fluorophore,

said method comprising the following steps:

a) placing a marker to be tested on the surface of a solid support, in order to form at least one spot,

b) saturating the surface of the solid support,

c) drying the surface of the solid support,

d) implementing at least the following steps:

(i) implementing one or more washing steps,

(ii) bringing together the spot or spots and at least one detection ligand,

(iii) bringing together the spot or spots and at least one reporter,

(iv) bringing together the spot or spots and at least one substrate chosen amongst luminol, an analogue of luminol, and/or a derivative of luminol,

c) selecting a marker which produces a signal at the end of step d).

6. The method for preparing a solid support for detecting at least one analyte in a sample comprising the following steps:

a) placing, on the surface of at least one compartment of a solid support, a mixture comprising at least one resistant control marker and at least one capture ligand, in order to obtain a spot, said resistant control marker or said resistant control markers being markers which remain at least partially fixed at the level of said spot on the surface of the solid support in the course of implementing a method for detecting at least one analyte, so as to produce a signal detectable at the end of said detection process,

b) repeating step a) n-1 times, n being a whole number greater than or equal to 1, in order to obtain n spots intended for detecting an analyte on the surface of said compartment or said compartments,

said resistant control marker being a marker, from which a signal is detected at the end of an analysis process,

said resistant control marker being a fluorophore selected from the group consisting of a coumarin, a rhodamine, a carbopyronine, an oxazine, benzopyrylium, a phycoerythrin and their derivatives.

7. The method according to claim 6, comprising furthermore the following steps:

c) saturating the surface of said compartment or said compartments, and/or

d) drying the surface of said compartment or said compartments.

8. The method according to claim 6 or claim 7, characterised in that said capture ligand or said capture ligands are selected from the group consisting of an antibody, an antigen, a nucleic acid and their combinations.

9. Use of at least one resistant control marker in at least one spot intended to detect an analyte in order to safeguard a method for detecting at least one analyte in a sample, characterised in that it comprises the reading of the signal produced by at least one detection marker of an analyte-detecting ligand to be detected on a reading grid defined from the location of the signal produced by said resistant control marker or said resistant control markers and detected at the end of the analysis process,

said resistant control marker or said resistant control markers being a marker, from which a signal is detected at the end of an analysis process,

said resistant control marker or said resistant control markers being a fluorophore selected from the group consisting of a coumarin, a rhodamine, a carbopyronine, an oxazine, benzopyrylium, a phycoerythrin and their derivatives.

10. The method according to any one of claims 1 to 8 or the use according to claim 9, characterised in that the fluorophore is coupled with a carrier molecule.