# Claims

[Claim 1]

A method for detecting a target nucleic acid in dry blood filter paper by real-time PCR, the method comprising:

(1) amplifying the target nucleic acid in the dry blood filter paper by applying thermal cycles to a sample solution containing a dry blood filter paper punch piece and a PCR reagent, wherein the PCR reagent contains a fluorescently labeled probe;

(2) optically detecting the fluorescence intensity of the sample solution for each of the thermal cycles; and

(3) performing quantitative analysis of the target nucleic acid using data after a predetermined number of cycles of the optically detected data,

wherein the data after the predetermined number of cycles in (3) is data obtained by optical detection started later than the start of the thermal cycles.

[Claim 2]

The method according to claim 1, wherein the predetermined number of cycles in (3) is 10 cycles or more and 25 cycles or less.

[Claim 3]

The method according to any one of claims 1 to 2, wherein the PCR reagent comprises at least primers, polymerase, and dNTPs besides the fluorescently labeled probe.

[Claim 4]

The method according to any one of claims 1 to 3, wherein the fluorescently labeled probe comprises a fluorescent substance and a quencher and comprises a partial sequence complementary to the template of the nucleic acid amplification reaction, and the amplified target nucleic acid is detected by detection of the fluorescence generated by irradiation of the fluorescent substance with excitation light.

[Claim 5]

The method according to any one of claims 1 to 4, wherein the fluorescent label has a fluorescence detection wavelength in the range of 500 nm to 600 nm.

[Claim 6]

The method according to any one of claims 1 to 5, wherein the target nucleic acid is a nucleic acid of one or more genes selected from the group consisting of TREC, KREC, and SMN1.

[Claim 7]

The method according to any one of claims 1 to 6, wherein the step of optically detecting the fluorescence intensity of the sample solution for each of the thermal cycles in (2) is a step based on photometric parameters set in a thermal cycler and is a step in which optical detection is started later than the start of the thermal cycles by setting unphotometric parameters from the start of thermal cycles to the predetermined number of cycles and setting photometric parameters after the predetermined number of cycles.