

Title (en)

MUTATED AND CHEMICALLY MODIFIED THERMALLY STABLE DNA POLYMERASES

Title (de)

MUTIERTE UND CHEMISCH MODIFIZIERTE THERMISCH STABILE DNA-POLYMERASEN

Title (fr)

MUTANTS D'ADN POLYMÉRASES THERMIQUEMENT STABLES MODIFIÉS CHIMIQUEMENT

Publication

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Application

EP 09767773 A 20090618

Priority

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Abstract (en)

[origin: WO2009155464A2] A mutant thermally stable DNA polymerase having at least one Lysine to Arginine substitution corresponding to at least one of amino acid position 505, 540 or 542 of Thermus aquaticus Taq polymerase A. Said polymerase can also be chemically modified to substantially reduced polymerase activity at ambient temperatures, wherein the chemical modification modifies at least one Lysine residue of the polymerase and said reduced polymerase activity is reversible upon heating at a temperature of at least 50 0C. Methods for using and kits containing the mutant DNA polymerase and chemically modified, mutant DNA polymerase for primer extension and amplification, respectively, are also envisioned.

IPC 8 full level

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CPC (source: EP)

C12N 9/1252 (2013.01); **C12P 19/34** (2013.01); **C12Q 1/6848** (2013.01)

Citation (search report)

- [I] WO 0222869 A2 20020321 - MEDICAL RES COUNCIL [GB], et al
- [X] GHADDESSY FARID J ET AL: "Directed evolution of polymerase function by compartmentalized self-replication", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, NATIONAL ACADEMY OF SCIENCES, WASHINGTON, DC; US, vol. 98, no. 8, 10 April 2001 (2001-04-10), pages 4552 - 4557, XP002189673, ISSN: 0027-8424, DOI: 10.1073/PNAS.071052198
- See references of WO 2009155464A2

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