

Title (en)

MAGNESIUM PRECIPITATE HOT START METHOD FOR MOLECULAR MANIPULATION OF NUCLEIC ACIDS

Title (de)

HOT START-MAGNESIUMPRÄZIPITATIONSVERFAHREN ZUR MOLEKULAREN MANIPULATION VON NUKLEINSÄUREN

Title (fr)

PROCEDE DE DEMARRAGE A CHAUD UTILISANT UN PRECIPITE DE MAGNESIUM POUR MANIPULATION MOLECULAIRE D'ACIDES NUCLEIQUES

Publication

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Application

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- US 92087201 A 20010802
- US 9178402 A 20020306

Abstract (en)

[origin: WO03012066A2] The present invention provides methods of performing enzymatic reactions, including PCR, which require the use of magnesium dependent enzymes, including restriction endonucleases, ligases, and reverse transcriptases. The method is based on sequestration of magnesium ions in the form of a precipitate which renders a magnesium dependent enzyme inactive until the appropriate time in the reaction when a certain temperature is reached and the magnesium ions are released from the precipitate. Also provided are kits comprising reagents and instructions for amplifying a target nucleic acid, for DNA digestion and ligation, and for reverse transcription of RNA into cDNA. Furthermore, the kits and reagents of the present invention can be utilized in other reactions requiring magnesium dependent enzymes.

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IPC 8 full level

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Citation (search report)

- [A] US 5250429 A 19931005 - JOLLY JAMES F [US], et al
- [A] KELLOGG ET AL: "TaqStart Antibody", BIOTECHNIQUES, INFORMA LIFE SCIENCES PUBLISHING, WESTBOROUGH, MA, US, vol. 16, no. 6, 1994, pages 1134 - 1137, XP002103159, ISSN: 0736-6205
- [PA] BARNES W M ET AL: "Magnesium precipitate hot start method for PCR", MOLECULAR AND CELLULAR PROBES, ACADEMIC PRESS, LONDON, GB, vol. 16, no. 3, June 2002 (2002-06-01), pages 167 - 171, XP004470993, ISSN: 0890-8508
- See references of WO 03012066A2

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