CLAIMS

1. A vector with a size of at least 16 kb comprising an inducible origin of replication, in which the inducible origin of replication comprises a pMB1 origin of replication:

in which the RNAI promoter is deleted or mutated such that the function of the RNAI promoter is abolished or significantly reduced, thereby obtaining a truncated RNAII pre-primer; and

in which the nucleic acid sequence encoding for RNAI is deleted or mutated such that the function of RNAI is abolished or significantly reduced, thereby obtaining a truncated RNAII pre-primer; and

in which at least one LacO1 operator is introduced upstream of the nucleic acid sequence encoding the truncated RNAII pre-primer, in which the at least one LacO1 operator is operably linked to the nucleic acid sequence encoding the truncated RNAII pre-primer.

2. A vector according to Claim 1, in which the endogenous RNAII promoter of the pMB1 origin of replication is replaced by a promoter which is not the endogenous promoter of the RNAII pre-primer of the pMB1 origin of replication, and in which the promoter which is not the endogenous promoter of the RNAII pre-primer of the pMB1 origin of replication is operably linked to the at least one LacO1 operator.

3. A vector according to Claim 2, in which the endogenous RNAII promoter of the pMB1 ori is replaced by a promoter selected from the group consisting of the promoter of RNA I, the *lac* promoter, the trp promoter, the trc promoter or the T7 promoter, preferably the *lac* promoter, more preferably the L8/UV5 *lac* promoter.

4. A vector according to Claim 1, 2 or 3, in which the inducible origin of replication is further characterized in that the nucleic acid at position 322 of the wild-type pMB1 origin of replication is mutated from an A to a G and/or the nucleic acid corresponding to the nucleic acid at position 543 of the wild-type pMB1 origin of replication is muted from a C to a T.

5. A vector according to any preceding claim, in which the inducible origin of replication comprises a nucleic acid sequence having at least 95%, preferably 100%, sequence identity with the nucleic sequence as set forth in SEQ ID NO 9.

6. A method for the production of a vector with a size of at least 16 kb from bacterial cells comprising the consecutive steps of:

(a) obtaining bacterial cells comprising a vector with a size of at least 16 kb, comprising an inducible origin of replication according to any preceding claim;

(b) inoculating culture medium with the bacterial cells comprising the vector;

(c) culturing the bacterial cells in the culture medium;

(d) adding one or more inducers of the inducible origin of replication to the culture medium when the bacterial culture has reached an optical density at 600 nm (OD_{600}) of at least 20;

(e) further culturing the bacterial cells in the culture medium;

(f) optionally separating the bacterial cells from the culture medium; and

(g) recovering the plasmid from the bacterial cells.

7. A method according to Claim 6, further comprising adding an inhibitor of bacterial protein synthesis to the culture medium after step (d) and before step (f).

8. A method according to Claim 6 or 7, in which glucose and/or yeast extract are added to the culture medium during culturing the bacterial cells in the culture medium.

9. A method according to Claim 8, in which the culture medium comprising glucose is exchanged by culture medium comprising from 0.50% (v/v) to 2.0% (v/v) glycerol at least 30 minutes before adding the one or more inducers of plasmid replication to the culture medium.

10. A method according to any of Claims 6 to 9, in which step (c) of culturing the bacterial cells in the culture medium is performed at a temperature of about 30°C and in which the temperature is increased from a temperature of about 30°C to a temperature from 36.0°C to 38.0°C at least two hours before adding the one or more inducers of plasmid replication to the culture medium.

11. A method according to according to any of Claims 6 to 10, in which the inducible origin of replication comprises at least one LacO1 operator and the inducer of said inducible origin of replication is isopropyl β-D-1-thiogalactopyranoside (IPTG) and/or alpha-D-lactose.

12. A method according to any of Claims 7 to 11, in which the inhibitor of bacterial protein synthesis is chloramphenicol or spectinomycin, preferably chloramphenicol.

13. A method according to any of Claims 7 to 12, in which the inhibitor of bacterial protein synthesis is added to the culture medium at least one hour after the addition of the one or more inducers of the inducible origin of replication.

14. A method according to any of Claims 7 to 13, in which the bacterial cells are separated from the culture medium at most 6 hours after addition of the one or more inducers of the inducible origin of replication.

15. An inducible origin of replication comprising a pMB1 origin of replication:

in which the RNAI promoter is deleted or mutated such that the function of the RNAI promoter is abolished or significantly reduced, thereby obtaining a truncated RNAII pre-primer; and

in which the nucleic acid sequence encoding for RNAI is deleted or mutated such that the function of RNAI is abolished or significantly reduced, thereby obtaining a truncated RNAII pre-primer; and

in which at least one LacO1 operator is introduced upstream of the nucleic acid sequence encoding the truncated RNAII pre-primer, in which the at least one LacO1 operator is operably linked to the nucleic acid sequence encoding the truncated RNAII pre-primer; and

in which the nucleic acid corresponding to the nucleic acid at position 322 of the wild-type pMB1 origin of replication is mutated from an A to a G and/or the nucleic acid corresponding to the nucleic acid at position 543 of the wild-type pMB1 origin of replication is muted from a C to a T.

16. An inducible origin of replication according to Claim 15, in which the inducible origin of replication comprises a nucleic acid sequence having at least 95%, preferably 100%, sequence identity with the nucleic sequence as set forth in SEQ ID NO 9.