CLAIMS

1. 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,
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 said 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.

2. The method according to claim 1, further comprising adding an inhibitor of bacterial protein synthesis to the culture medium after step d) and before step f).

3. The method according to claim 1 or 2, wherein glucose and/or yeast extract are added to the culture medium during culturing the bacterial cells in the culture medium.

4. The method according to claim 3, wherein 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.

5. The method according to any one of claims 1 to 4, wherein step c) of culturing the bacterial cells in the culture medium is performed at a temperature of about 30°C and wherein 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.

6. The method according to according to any one of claims 1 to 5, wherein 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.

7. The method according to any one of claims 2 to 6, wherein the inhibitor of bacterial protein synthesis is chloramphenicol or spectinomycin, preferably chloramphenicol.

8. The method according to any one of claims 2 to 7, wherein 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.

9. The method according to any one of claims 2 to 8, wherein 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.

10. A vector with a size of at least 16 kb comprising an inducible origin of replication, wherein said 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, wherein the at least one LacO1 operator is operably linked to the nucleic acid sequence encoding the truncated RNAII pre-primer.

11. The vector according to claim 10, wherein 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 wherein said 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.

12. The vector according to claim 11, wherein 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.

13. 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, wherein 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.

14. The vector according to any one of claims 10 to 12, or the inducible origin of replication according to claim 13, wherein 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.

15. The method according to any one of claims 1 to 9, wherein said vector with a size of at least 16 kb is the vector according to any one of claims 10 to 12 or 14.