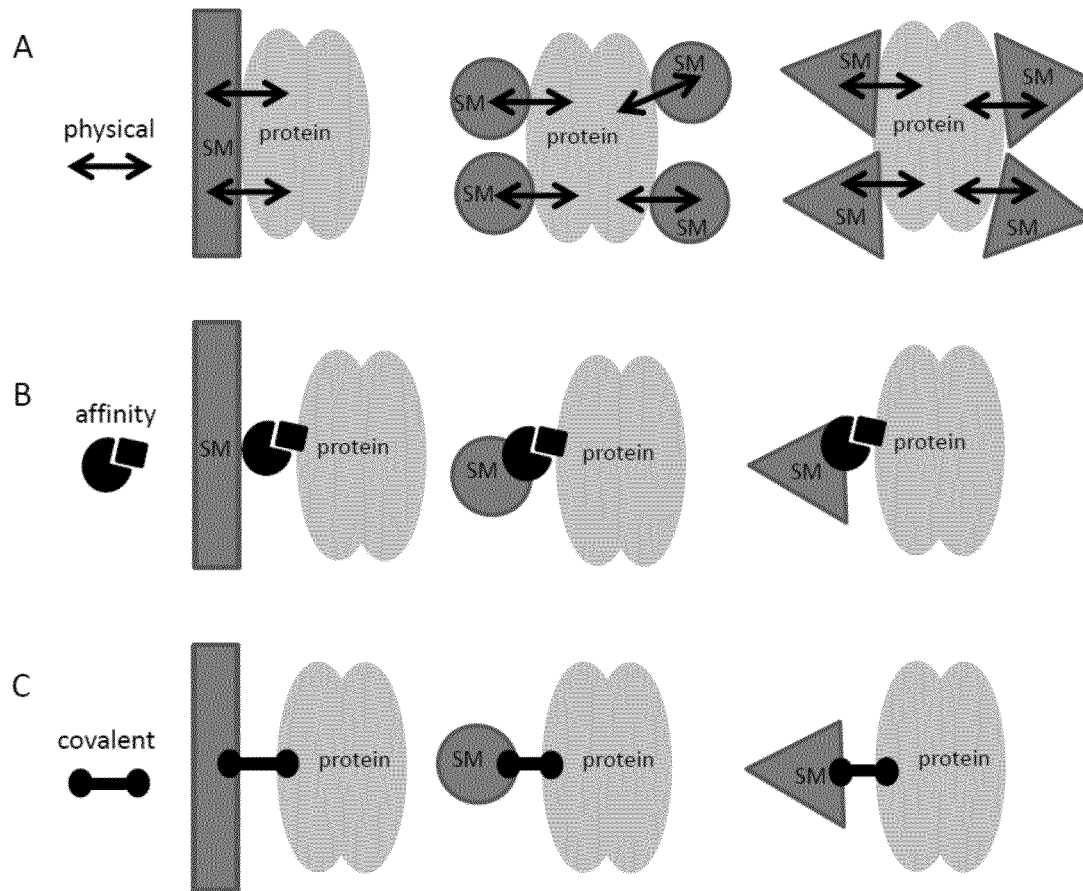
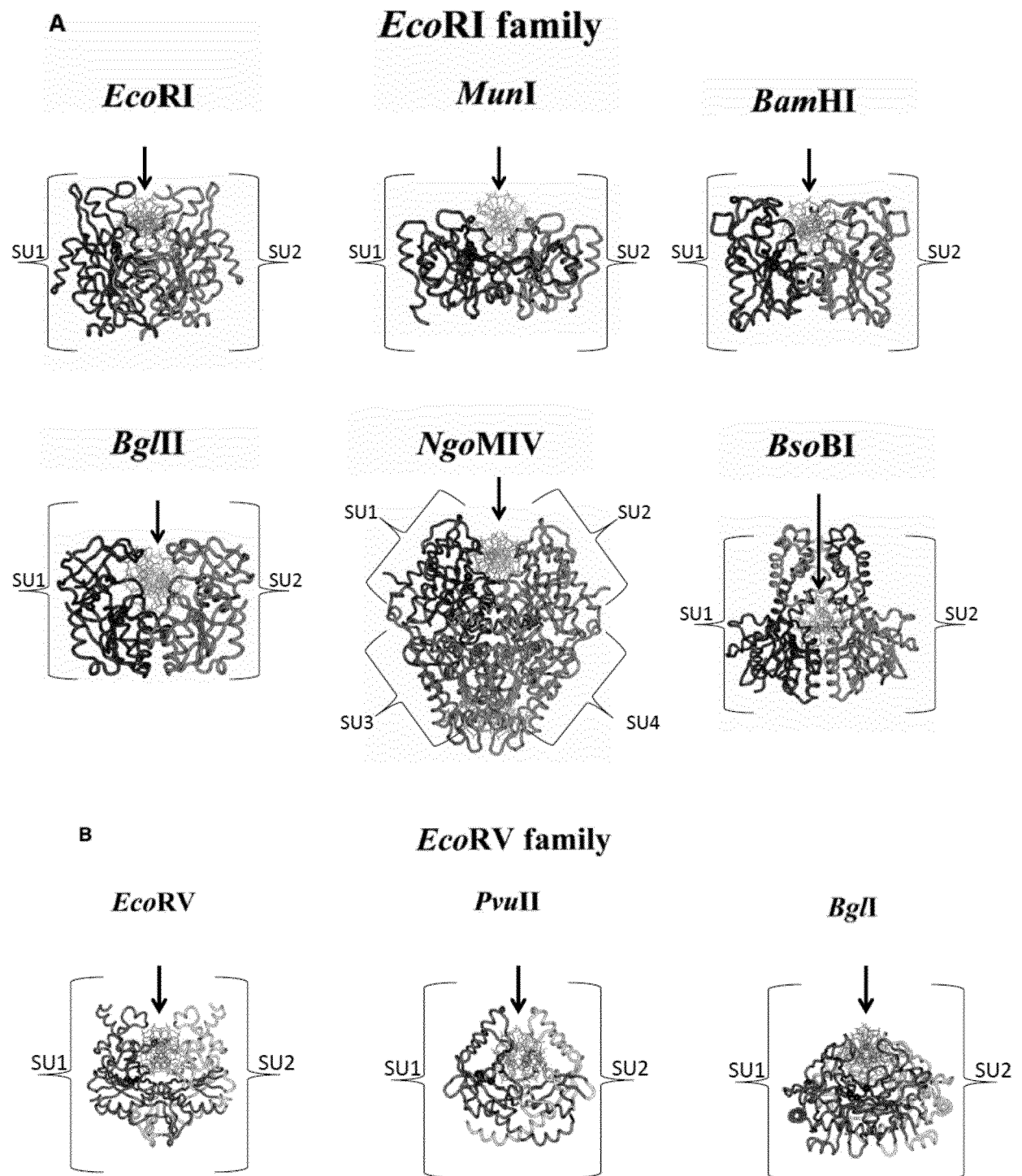


**Figure 1**

**Figure 2**

## Figure 3.

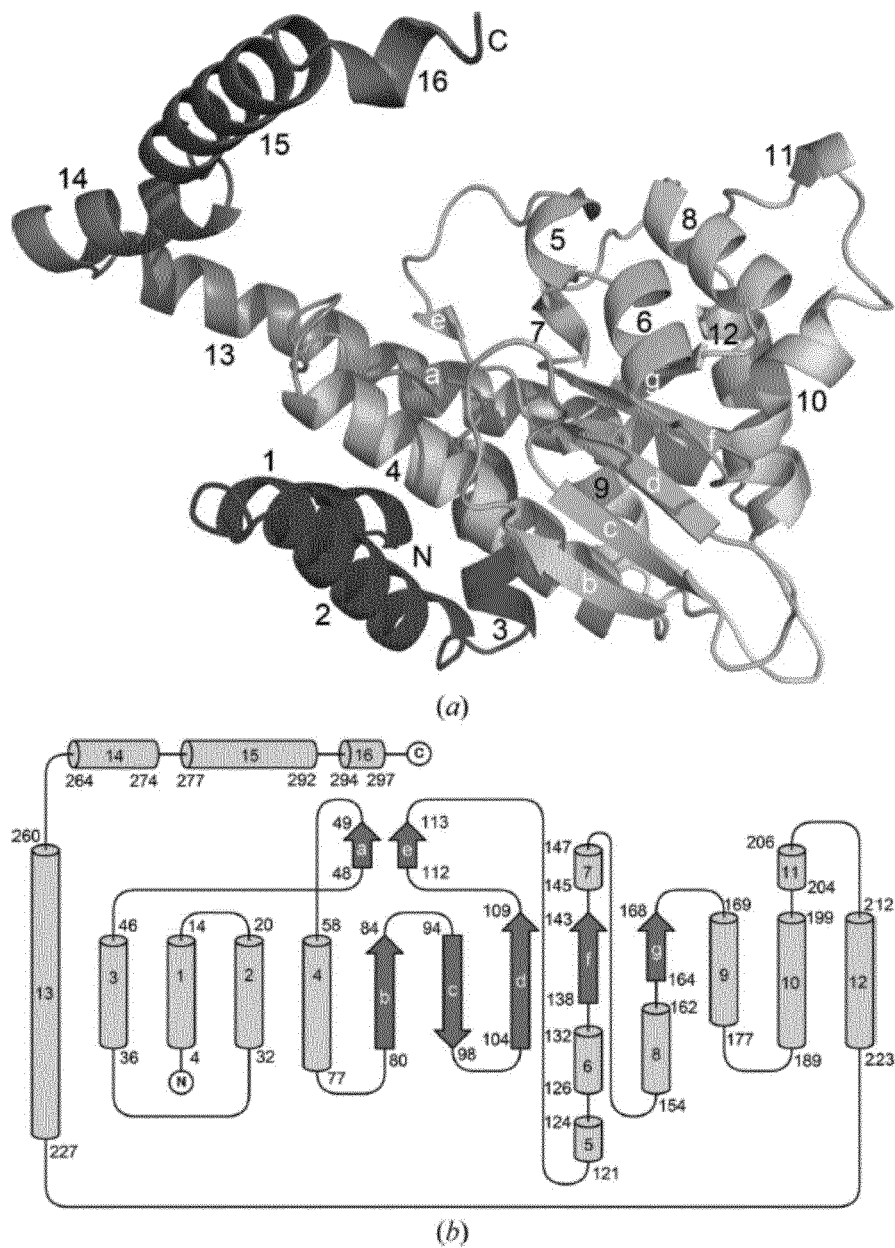
BciVI (Bful):

> Type-2 restriction enzyme BciVI (Bful); wild type (SEQ ID No. 14)

MNFFSLHPNVYATGRPKGLIGMLENVVWSNHTPGEGTLYLISGFSNYNGGVRFYETFFTEHINQGGRVIAI  
LGGSTSQRLSSRQVVEELLNRGVEVHI INRKRI LHAKLYGTSNNLGESLVVSSGNFTGPGMSQNI EASLL  
LDNNTTQSMGFSWNDMISEMLNQNWIIHNM TNATDASPGWNLLYDERTTNLTLD ETERVT LIVTLGHADT  
ARIQAAPGTTAGQGTQYFWLSKDSYDFFPPLTIRNRRGTKATYSSLINMNYIDINYTD TQ RVTFEAENN  
FDFRLGTGKLRYTGVAKSNDIAAITRVGDSYELRI IKQGTPEHSQLDPYAVSFIGNRGKRFGYISNEEF  
GRIIGVTF

> Type-2 restriction enzyme BciVI (Bful); C271[S/A],359C (SEQ ID Nos. 16 and 17)

MNFFSLHPNVYATGRPKGLIGMLENVVWSNHTPGEGTLYLISGFSNYNGGVRFYETFFTEHINQGGRVIAI  
LGGSTSQRLSSRQVVEELLNRGVEVHI INRKRI LHAKLYGTSNNLGESLVVSSGNFTGPGMSQNI EASLL  
LDNNTTQSMGFSWNDMISEMLNQNWIIHNM TNATDASPGWNLLYDERTTNLTLD ETERVT LIVTLGHADT  
ARIQAAPGTTAGQGTQYFWLSKDSYDFFPPLTIRNRRGTKATYSSLINMNYIDINYTD TQ [S/A] RVTFE  
AENNFD FRLGTGKLRYTGVAKSNDIAAITRVGDSYELRI IKQGTPEHSQLDPYAVSFIGNRGKRFGYIS  
NEEFGR IIGVTF C

**Figure 4.**

**Figure 5.**

> Type-2 restriction enzyme HindIII; wildtype (SEQ ID No. 2)

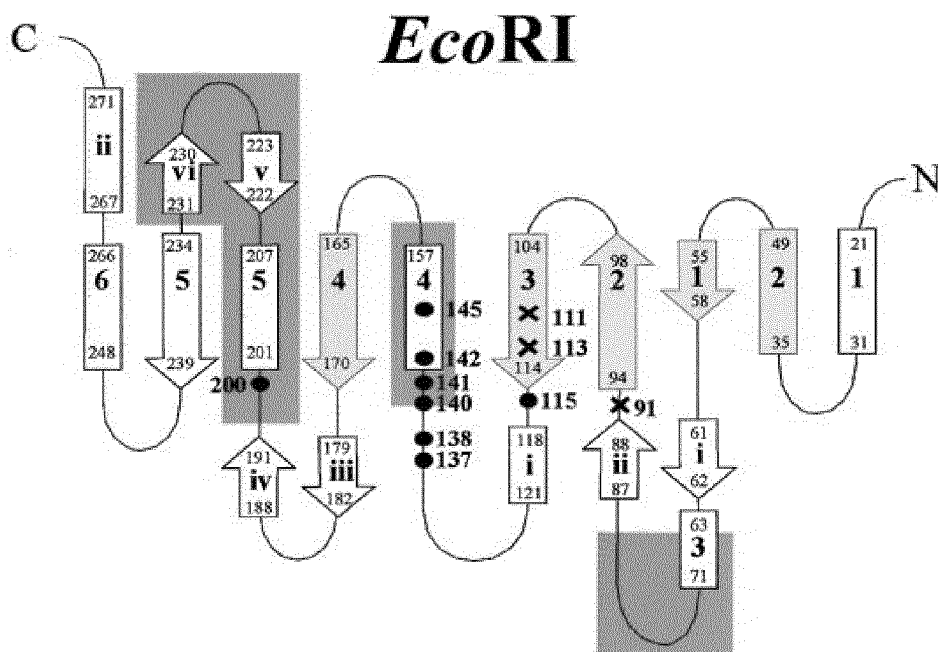
MKKSAL EKLLSLIENLTNQEFKQATNSLISFIYKLN RNEVIELVRSIGILPEAIKPSSTQEKLF SKAG  
DIVLAKAFQLLNLSKPLEQRGNAGDVIALSKEFN YGLVADAKSFRLSRTAKNQKDFKVKALSEWRED  
KDYAVLTAPFFQYPTTKSQIFKQSLDENVLLFSWEHLA ILLQLDLEETNIFSFEQLWNFPKKQSKKTS  
VSDAENNFM RDFNKYFMDLFKIDKDTLNQLLQKEINFIEERSLIEKEYWKKQINI IKNFTREEAIEAL  
LKDINMSSKIETIDSF IKG IKSNDRLYL

> Type-2 restriction enzyme HindIII; L300C (SEQ ID No. 10)

MKKSAL EKLLSLIENLTNQEFKQATNSLISFIYKLN RNEVIELVRSIGILPEAIKPSSTQEKLF SKAG  
DIVLAKAFQLLNLSKPLEQRGNAGDVIALSKEFN YGLVADAKSFRLSRTAKNQKDFKVKALSEWRED  
KDYAVLTAPFFQYPTTKSQIFKQSLDENVLLFSWEHLA ILLQLDLEETNIFSFEQLWNFPKKQSKKTS  
VSDAENNFM RDFNKYFMDLFKIDKDTLNQLLQKEINFIEERSLIEKEYWKKQINI IKNFTREEAIEAL  
LKDINMSSKIETIDSF IKG IKSNDRLY **C**

> Type-2 restriction enzyme HindIII; C-terminal extension 301C (SEQ ID No. 11)

MKKSAL EKLLSLIENLTNQEFKQATNSLISFIYKLN RNEVIELVRSIGILPEAIKPSSTQEKLF SKAG  
DIVLAKAFQLLNLSKPLEQRGNAGDVIALSKEFN YGLVADAKSFRLSRTAKNQKDFKVKALSEWRED  
KDYAVLTAPFFQYPTTKSQIFKQSLDENVLLFSWEHLA ILLQLDLEETNIFSFEQLWNFPKKQSKKTS  
VSDAENNFM RDFNKYFMDLFKIDKDTLNQLLQKEINFIEERSLIEKEYWKKQINI IKNFTREEAIEAL  
LKDINMSSKIETIDSF IKG IKSNDRLYL **C**

**Figure 6.**

## Figure 7.

### > Type II restriction enzyme EcoRI, wildtype (SEQ ID No. 1)

MSNKKQSNRLTEQHKLSQGVIIGIFGDYAKAHD LAVGEVSKLVKKALSNEY PQLSFRYRDSIKKTEINE  
ALKKIDPDLGGTLFVSNSSIKPDGGIVEVKDDYGEWRVVLVAEAKHQGKDIINIRNGLLVGKRGDQDL  
MAAGNAIERSHKNI SEIANFMLSESHFPYVLFLEGSNFLTENISITRPDGRVVNLEYNSGILNRLDRL  
TAANYGMPINSNL **C** INKFVNHKDKS IMLQAASIYTQGDGREWDSKIMFEIMFDISTTSLRVLGRDLFE  
QLTS **K**

### > Type II restriction enzyme EcoRI (K277C) (SEQ ID No. 4)

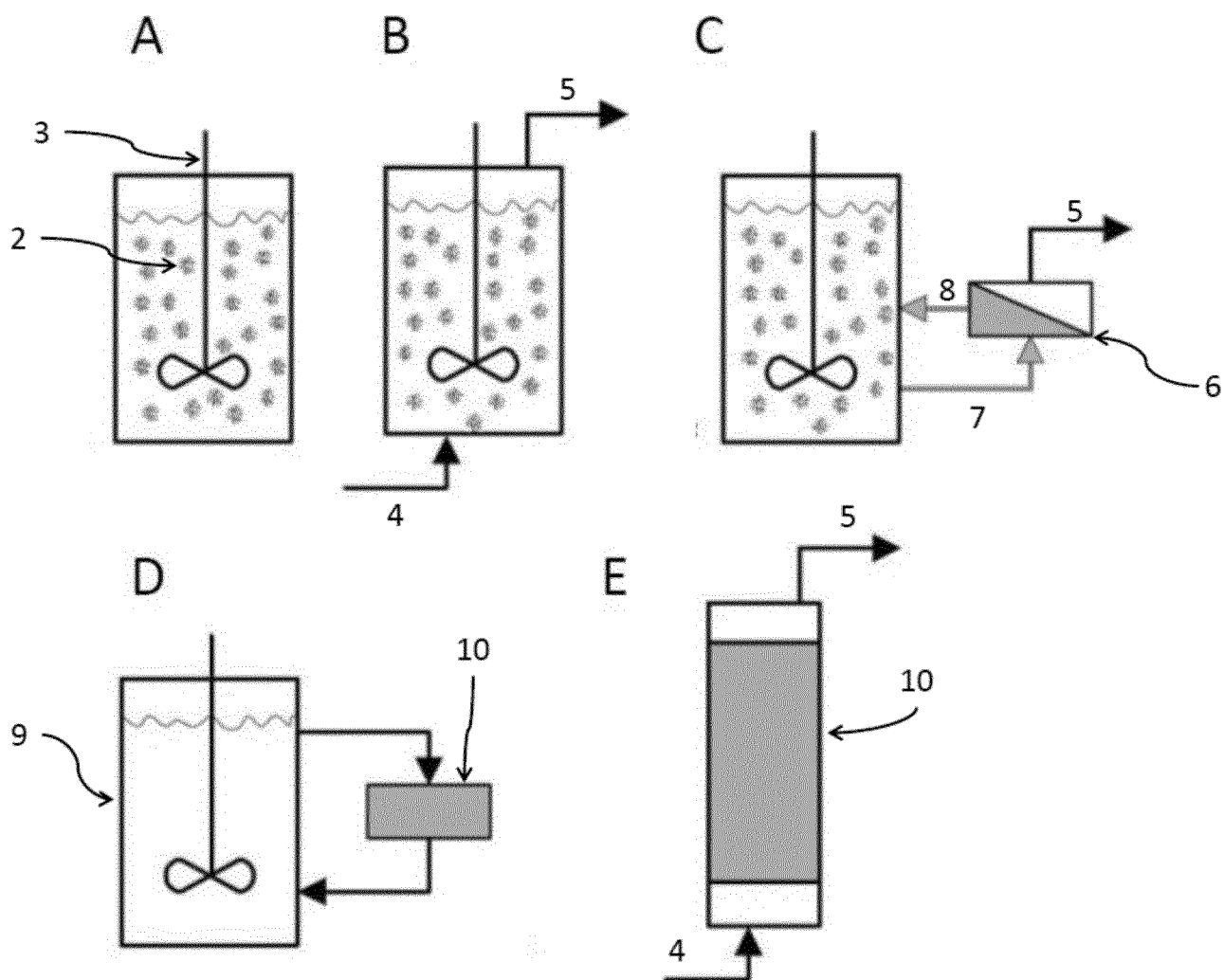
MSNKKQSNRLTEQHKLSQGVIIGIFGDYAKAHD LAVGEVSKLVKKALSNEY PQLSFRYRDSIKKTEINE  
ALKKIDPDLGGTLFVSNSSIKPDGGIVEVKDDYGEWRVVLVAEAKHQGKDIINIRNGLLVGKRGDQDL  
MAAGNAIERSHKNI SEIANFMLSESHFPYVLFLEGSNFLTENISITRPDGRVVNLEYNSGILNRLDRL  
TAANYGMPINSNL **C** INKFVNHKDKS IMLQAASIYTQGDGREWDSKIMFEIMFDISTTSLRVLGRDLFE  
QLTS **C**

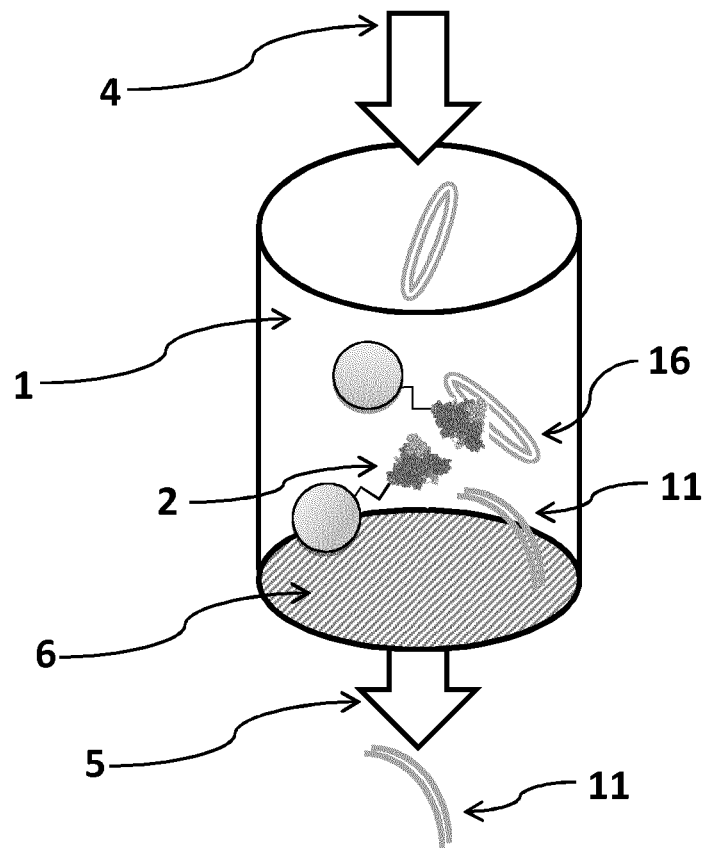
### > Type II restriction enzyme EcoRI, double mutant (C218[A/S], K277C) (SEQ ID Nos. 5 and 6)

MSNKKQSNRLTEQHKLSQGVIIGIFGDYAKAHD LAVGEVSKLVKKALSNEY PQLSFRYRDSIKKTEINE  
ALKKIDPDLGGTLFVSNSSIKPDGGIVEVKDDYGEWRVVLVAEAKHQGKDIINIRNGLLVGKRGDQDL  
MAAGNAIERSHKNI SEIANFMLSESHFPYVLFLEGSNFLTENISITRPDGRVVNLEYNSGILNRLDRL  
TAANYGMPINSNL **[A/S]** INKFVNHKDKS IMLQAASIYTQGDGREWDSKIMFEIMFDISTTSLRVLGR  
DLFEQLTS **C**

### > Type II restriction enzyme EcoRI, C-terminal extension (C218[A/S], 278 (12xG)C) (SEQ ID Nos. 8 and 9)

MSNKKQSNRLTEQHKLSQGVIIGIFGDYAKAHD LAVGEVSKLVKKALSNEY PQLSFRYRDSIKKTEINE  
ALKKIDPDLGGTLFVSNSSIKPDGGIVEVKDDYGEWRVVLVAEAKHQGKDIINIRNGLLVGKRGDQDL  
MAAGNAIERSHKNI SEIANFMLSESHFPYVLFLEGSNFLTENISITRPDGRVVNLEYNSGILNRLDRL  
TAANYGMPINSNL **[A/S]** INKFVNHKDKS IMLQAASIYTQGDGREWDSKIMFEIMFDISTTSLRVLGR  
DLFEQLTSK **GGGGGGGGGGGGC**

**Figure 8.**

**Figure 9.**

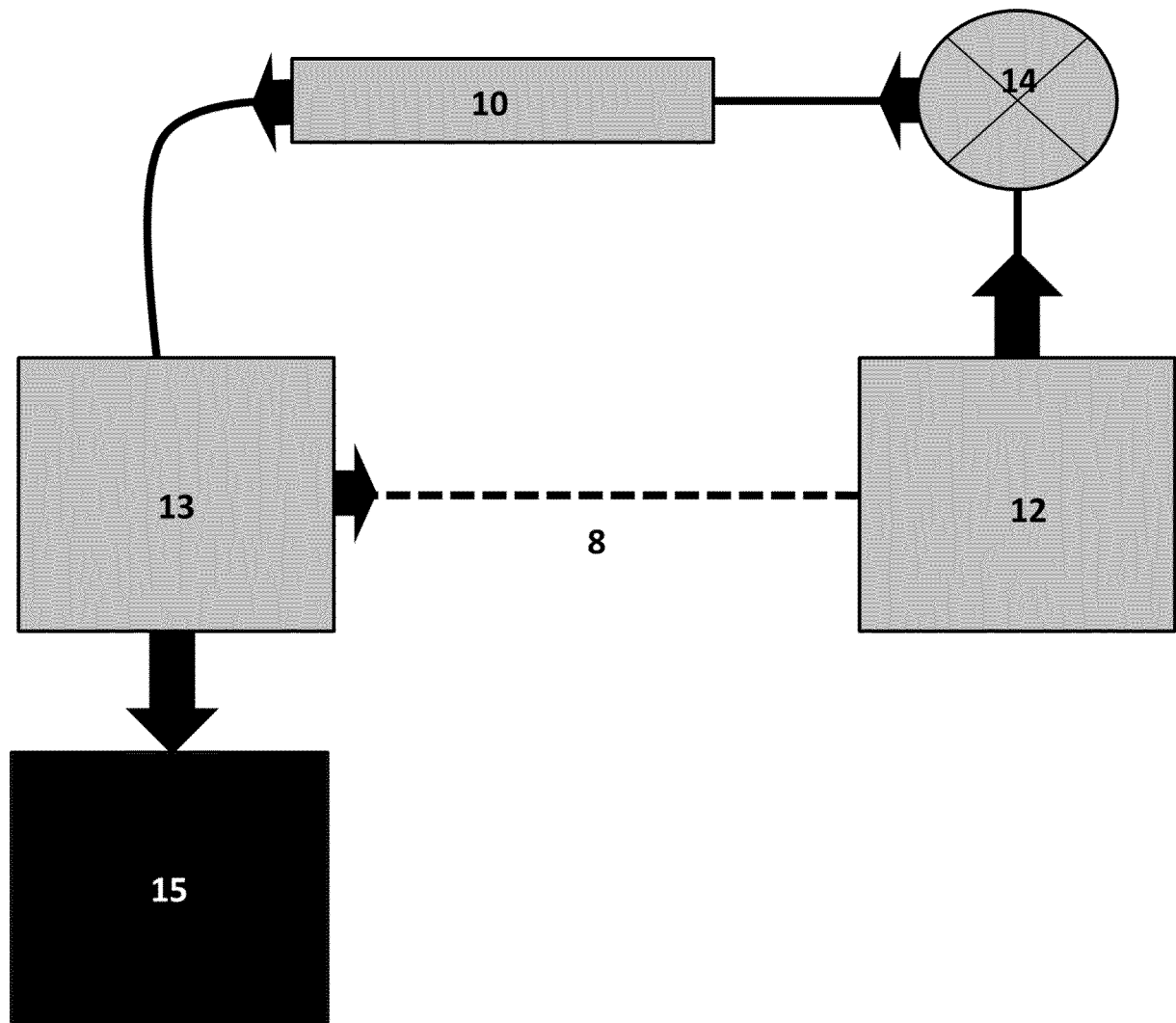
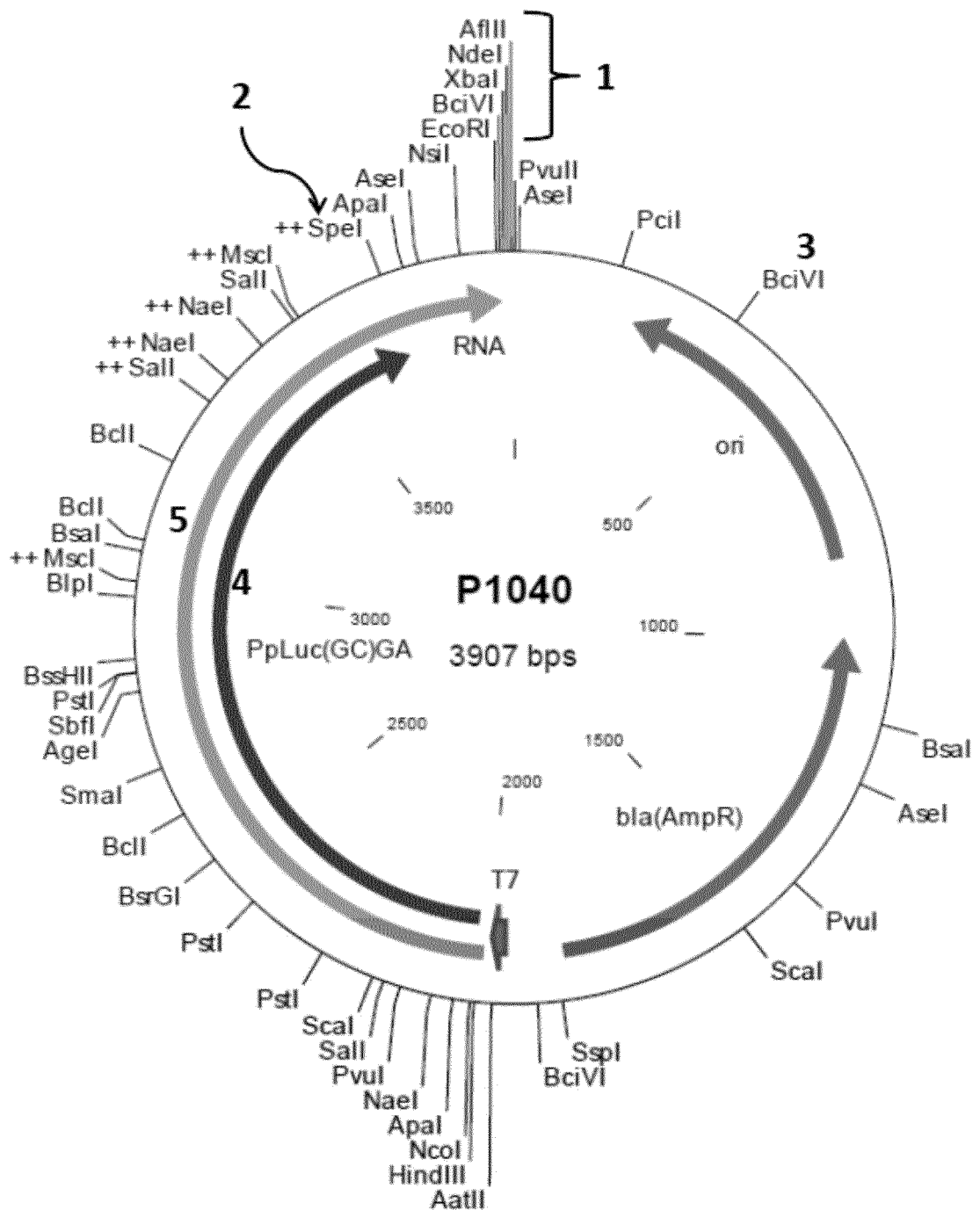
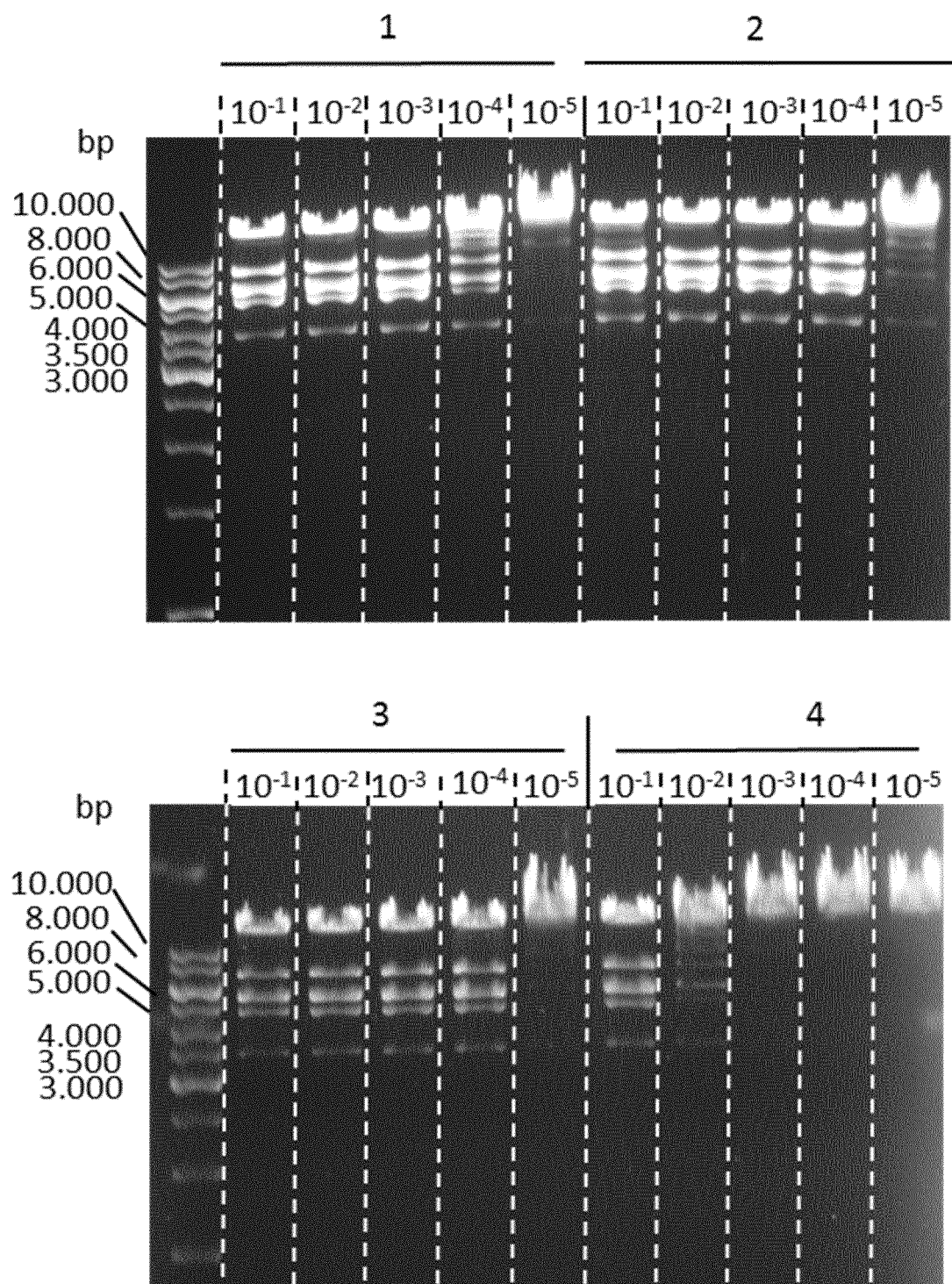
**Figure 10.**

Figure 11.



**Figure 12.**

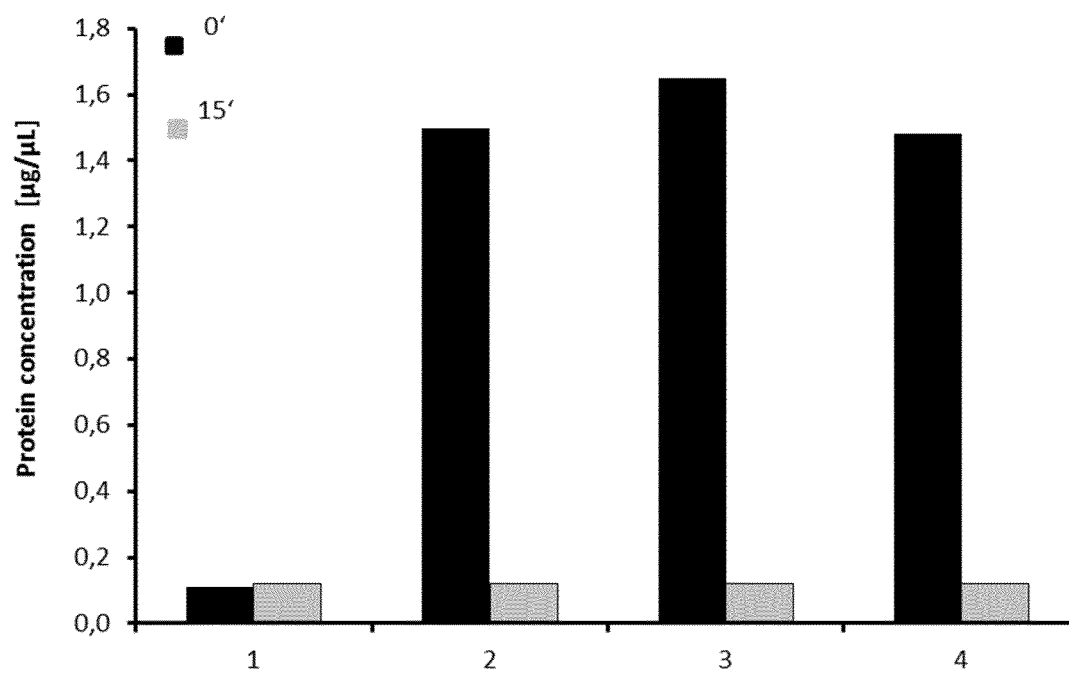
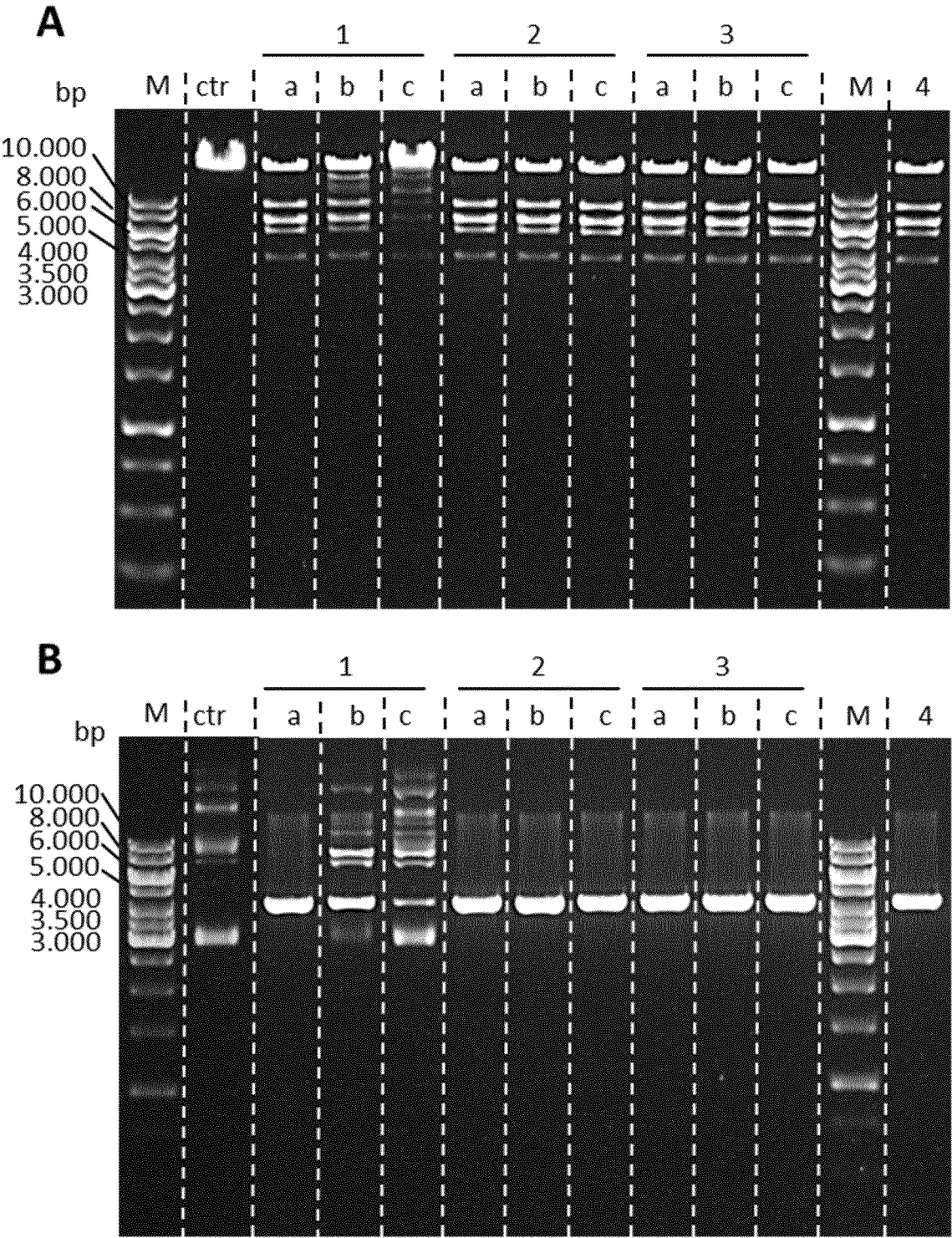
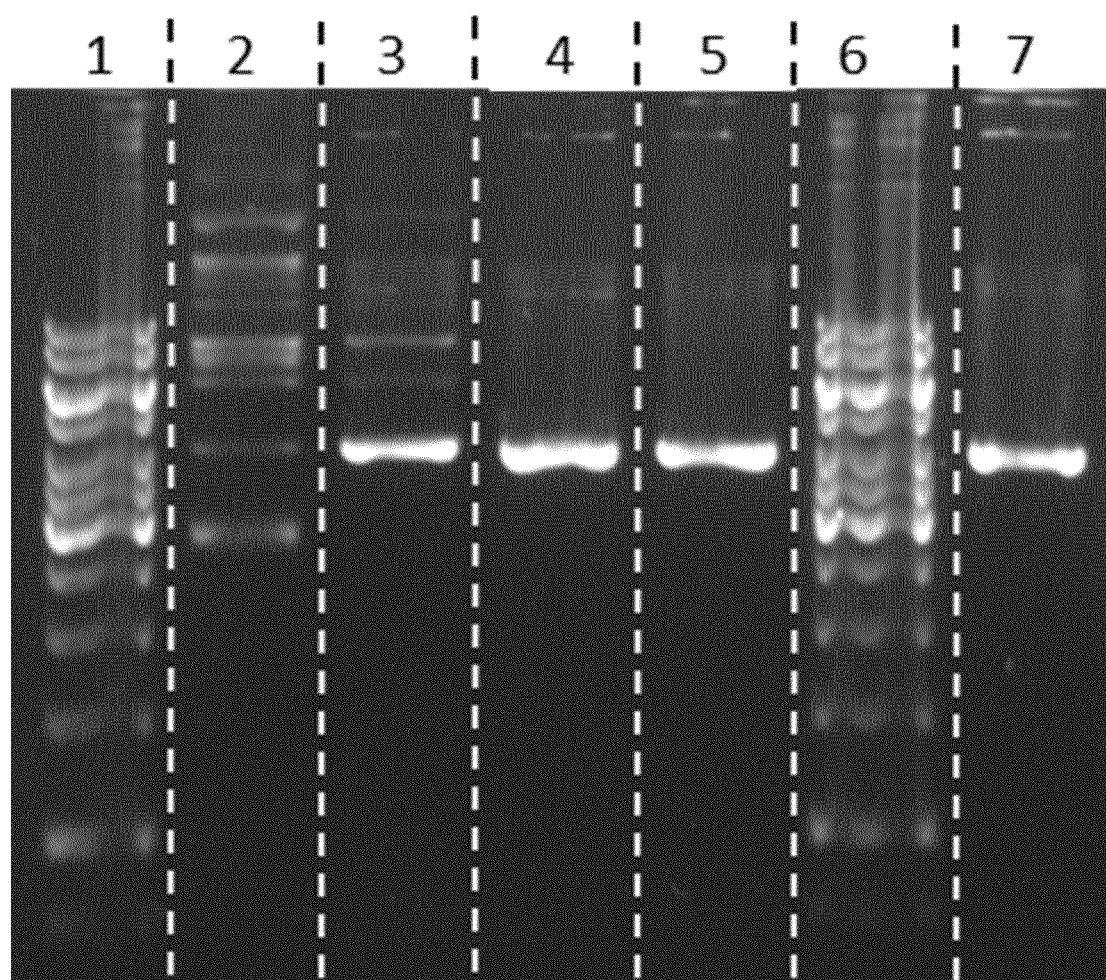
**Figure 13.**

Figure 14.



**Figure 15.**

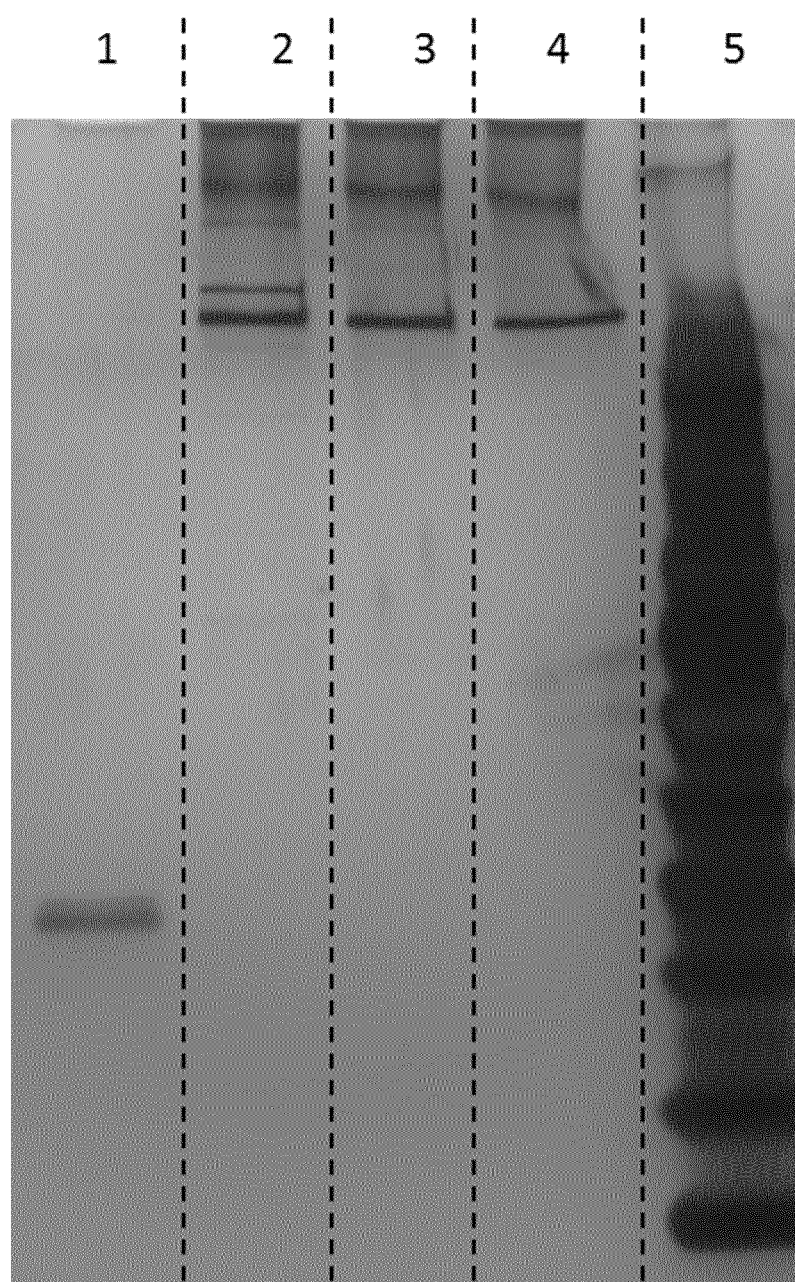
**Figure 16.**

Figure 17.

