

Figure 1

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TEM-59      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMMSSTFKVLLCGAVLSRVD 60
TEM-89      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMMSSTFKVLLCGAVLSRVD 60
TEM-151     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-152     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-36      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-39      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-125     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-158     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-80      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-32      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-34      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-33      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-109     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-68      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMMSSTFKVLLCGAVLSRVD 60
TEM-121     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMMSSTFKVLLCGAVLSRVD 60
*****:*****:*****

TEM-59      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDNAAANLLLTIGGP 120
TEM-89      AGQEQLGRRRIHYSQNDLVKYSVPVTEKHLTDGMTVRELCSAAITMGDNAAANLLLTIGGP 120
TEM-151     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-152     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-36      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-39      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-125     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-158     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-80      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-32      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-34      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-33      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-109     AGQEQLGRRRIHYSQNDLVKYSVPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-68      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
TEM-121     AGQEQLGRRRIHYSQNDLVKYSVPVTEKHLTDGMTVRELCSAAITMSDNAAANLLLTIGGP 120
*****:*****:*.*****

TEM-59      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-89      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-151     KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-152     KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-36      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-39      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-125     KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-158     KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-80      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-32      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-34      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-33      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-109     KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-68      KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
TEM-121     KELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQ 180
***** ***** *****

TEM-59      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-89      QLIDWMEADKVAGPLLRSALPAGWFIADKSGASERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-151     QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-152     QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGKRGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-36      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-39      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-125     QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-158     QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-80      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-32      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-34      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-33      QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-109     QLIDWMEADKVAGPLLRSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-68      QLIDWMEADKVAGPLLRSALPAGWFIADKSGASKRGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-121     QLIDWMEADKVAGPLLRSALPAGWFIADKSGTGKRGSSGIIAALGPDGKPSRIVVIYTTG 240
*****:.* *****

TEM-59      SQATMDERNRQIAEIGASLIKH 263
TEM-89      SQATMDERNRQIAEI----- 255
TEM-151     SQATMDERDRQIAEIGGSLIKHW 263
TEM-152     SQATMDERDRQIAEIGASLIKH 263
TEM-36      SQATMDERDRQIAEIGASLIKH 263
TEM-39      SQATMDERDRQIAEIGASLIKH 263
TEM-125     SQATMDERDRQIAEIGASLIKH 263
TEM-158     SQATMDERDRQIAEIGASLIKH 263
TEM-80      SQATMDERDRQIAEIGASLIKH 263
TEM-32      SQATMDERNRQIAEIGASLIKH 263
TEM-34      SQATMDERNRQIAEIGASLIKH 263
TEM-33      SQATMDERNRQIAEIGASLIKH 263
TEM-109     SQATMDERNRQIAEIGASLIKH 263
TEM-68      SQATMDERNRQIAEIGASLIKH 263
TEM-121     SQATMDERNRQIAEIGASLIKH 263
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Figure 2

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CTX-M-14      QTSVAVQKKLAALKSSGGRLGVALIDTADNTQVLYRGDERFPMCSTSKVMAAAAVLKQSE 60
CTX-M-19      QTSVAVQKKLAALKSSGGRLGVALIDTADNTQVLYRGDERFPMCSTSKVMAAAAVLKQSE 60
CTX-M-18      QTSVAVQKKLAALKSSGGRLGVALIDTADNTQVLYRGDERFPMCSTSKVMAAAAVLKQSE 60
CTX-M-9       QTSVAVQKKLAALKSSGGRLGVALIDTADNTQVLYRGDERFPMCSTSKVMAAAAVLKQSE 60
CTX-M-16      QTSVAVQKKLAALKSSGGRLGVALIDTADNTQVLYRGDERFPMCSTSKVMAAAAVLKQSE 60
CTX-M-1       QTADVQKKLAELERQSGGRLGVALINTADNSQILYRADERFAMCSTSKVMAAAAVLKQSE 60
CTX-M-3       QTADVQKKLAELERQSGGRLGVALINTADNSQILYRADERFAMCSTSKVMAAAAVLKQSE 60
** : ***** ** : ***** : ***** : ***** : ***** : ***** : ***** : **

CTX-M-14      TQKQLLNQPVIEIKPADLVNYPNIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIAQLGGP 120
CTX-M-19      TQKQLLNQPVIEIKPADLVNYPNIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIAQLGGP 120
CTX-M-18      TQKQLLNQPVIEIKPADLVNYPNIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIAQLGGP 120
CTX-M-9       TQKQLLNQPVIEIKPADLVNYPNIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIAQLGGP 120
CTX-M-16      TQKQLLNQPVIEIKPADLVNYPNIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIAQLGGP 120
CTX-M-1       SEPNLLNQRVIEIKSDLVNYPNIAEKHVNGTMSLAELSAAALQYSDNVAMNKLIHVGGP 120
CTX-M-3       SEPNLLNQRVIEIKSDLVNYPNIAEKHVNGTMSLAELSAAALQYSDNVAMNKLIHVGGP 120
: : ***** : ***** : ***** : ***** : ***** : ***** : ***** : **

CTX-M-14      GGVTAFAAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRQLTLGHALGETQRA 180
CTX-M-19      GGVTAFAAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRQLTLGHALGETQRA 180
CTX-M-18      GGVTAFAAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRQLTLGHALGETQRA 180
CTX-M-9       GGVTAFAAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRQLTLGHALGETQRA 180
CTX-M-16      GGVTAFAAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRQLTLGHALGETQRA 180
CTX-M-1       ASVTAFARQLGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRNLTLGKALGDSQRA 180
CTX-M-3       ASVTAFARQLGDETFRLDRTEPTLNTAIPGDPRDTTTPRMAQTLRNLTLGKALGDSQRA 180
: : ***** : ***** : ***** : ***** : ***** : ***** : ***** : **

CTX-M-14      QLVTLWLGKNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVTYFTQ 240
CTX-M-19      QLVTLWLGKNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVTYFTQ 240
CTX-M-18      QLVTLWLGKNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVTYFTQ 240
CTX-M-9       QLVTLWLGKNTTGAASIRAGLPTSWTAGDKTGSGDYGTTNDIAVIWPQGRAPLVLVTYFTQ 240
CTX-M-16      QLVTLWLGKNTTGAASIRAGLPTSWTAGDKTGSGGYGTTNDIAVIWPQGRAPLVLVTYFTQ 240
CTX-M-1       QLVTMKGNNTTGAASIQAGLPASVVGDKTGSGDYGTTNDIAVIWPKDRAPLILVTYFTQ 240
CTX-M-3       QLVTMKGNNTTGAASIQAGLPASVVGDKTGSGDYGTTNDIAVIWPKDRAPLILVTYFTQ 240
***** : ***** : ***** : ***** : ***** : ***** : ***** : *****

CTX-M-14      PQQNAESRRDVLASAARIIEAGL 263
CTX-M-19      PQQNAESRRDVLASAARIIEAGL 263
CTX-M-18      PQQNAESRRDVLASAARIIEAGL 263
CTX-M-9       PQQNAESRRDVLASAARIIEAGL 263
CTX-M-16      PQQNAESRRDVLASAARIIEAGL 263
CTX-M-1       PQPKAESRRDVLASAARIIVTNGL 263
CTX-M-3       PQPKAESRRDVLASAARIIVTDGL 263
** : ***** : ***** : ***** : ***** : ***** : ***** : *****

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Figure 3

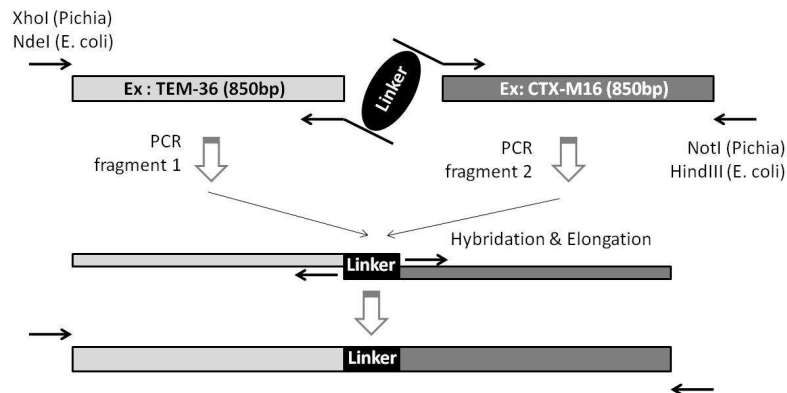


Figure 4

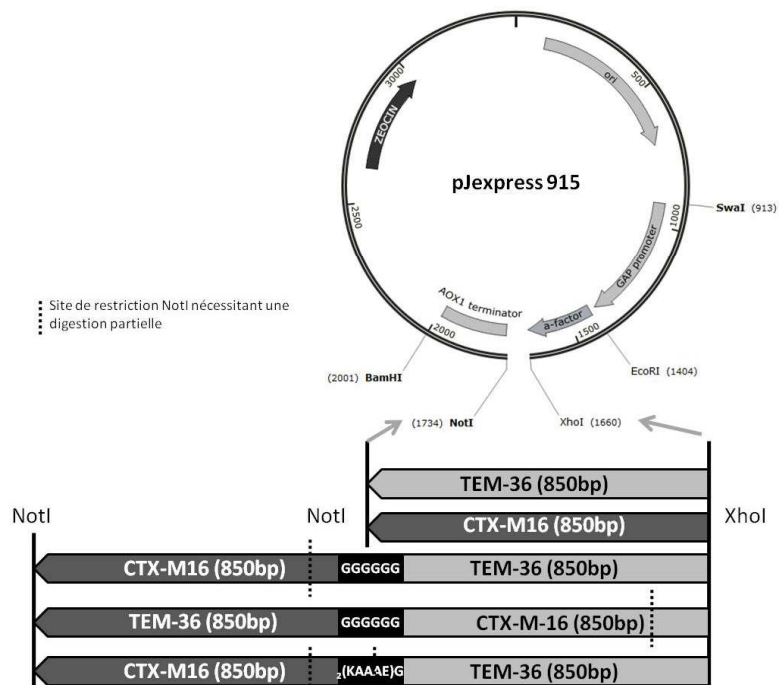


Figure 5

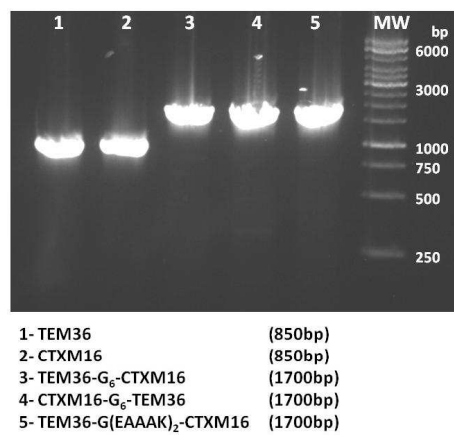


Figure 6

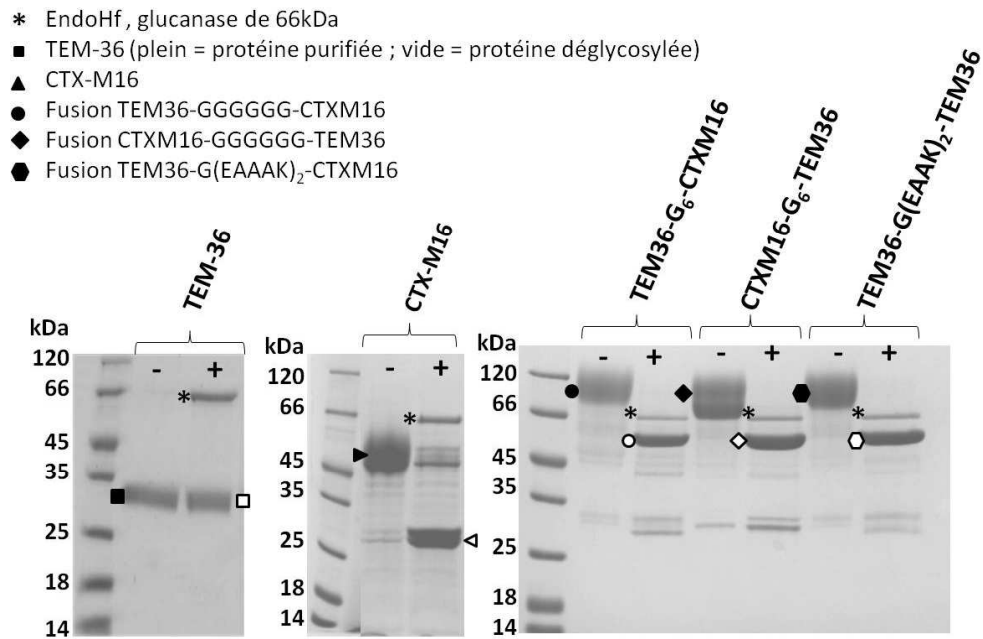


Figure 7

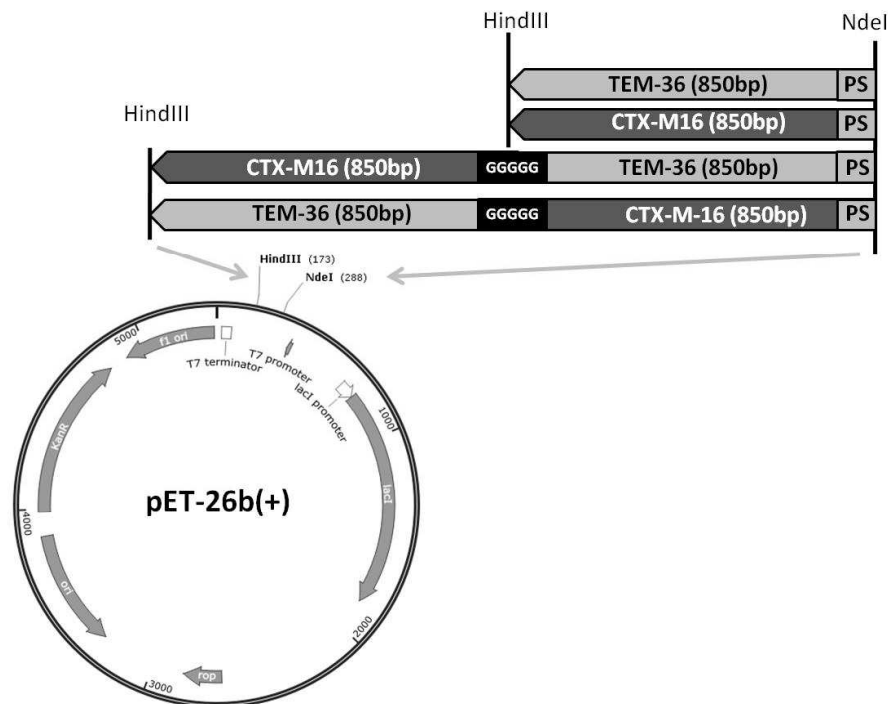


Figure 8

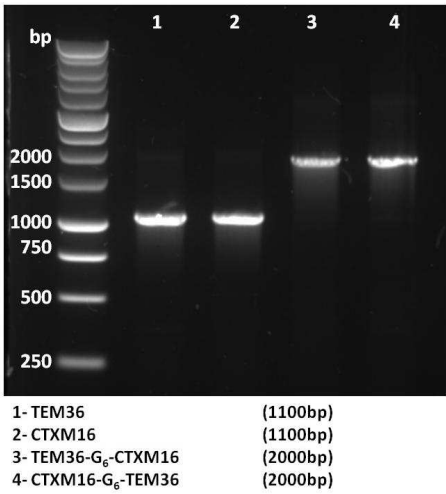


Figure 9

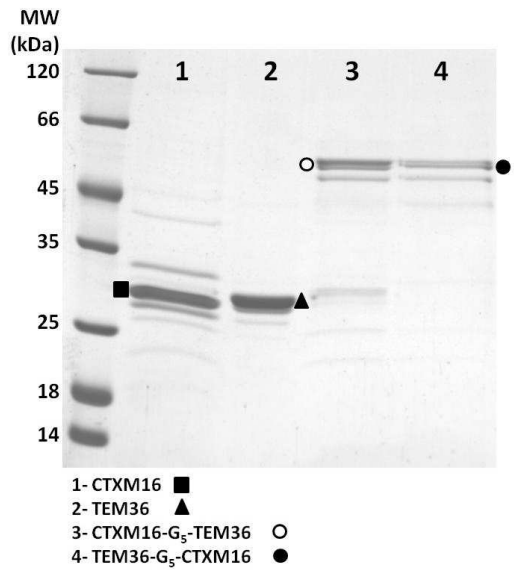
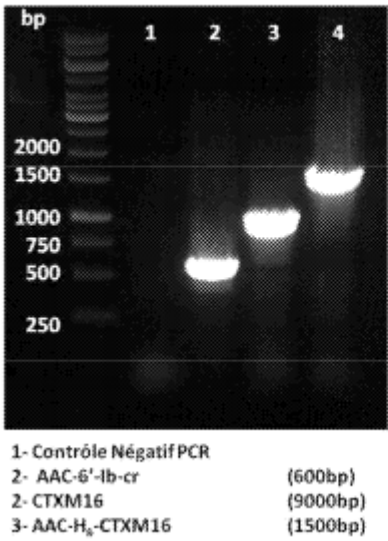


Figure 10



Negative PCR control

Figure 11

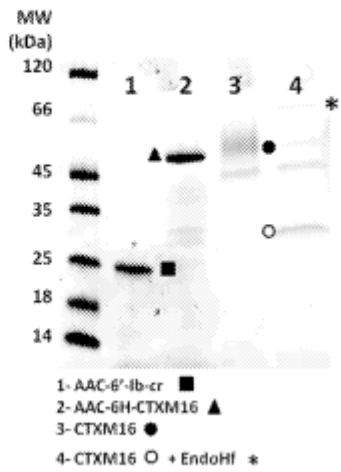


Figure 12

