

Figure 1

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TEM-59      HPETLVKVKDAEDKLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-89      HPETLVKVKDAEDKLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-151     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-152     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-36      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-39      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-125     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-158     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-80      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-32      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMI STFKVLLCGAVLSRVD 60
TEM-34      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMVSTFKVLLCGAVLSRVD 60
TEM-33      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-109     HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-68      HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
TEM-121     HPETLVKVKDAEDKLGARVGYIELDLNSGKILESFRPEERFPM MSTFKVLLCGAVLSRVD 60
*****:*****

TEM-59      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-89      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-151     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-152     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-36      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-39      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-125     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-158     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-80      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-32      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-34      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-33      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-109     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-68      AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
TEM-121     AGQEQLGRRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMGDN TAANLLTTTIGGP 120
*****:*****

TEM-59      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-89      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-151     KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-152     KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-36      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-39      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-125     KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-158     KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-80      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-32      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-34      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-33      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-109     KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-68      KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
TEM-121     KeltaFLHNMGDHVTRLD RWEPELNEAI PNDERDTT MPAAMATTLRKLTTGELLTLASRQ 180
*****:*****

TEM-59      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-89      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-151     QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-152     QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-36      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-39      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-125     QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-158     QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-80      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-32      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-34      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-33      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-109     QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-68      QLIDWMEADKVAGPLLR SALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTG 240
TEM-121     QLIDWMEADKVAGPLLR SALPAGWFIADKSGTGRKSSGIIAALGPDGKPSRIVVIYTTG 240
*****:*****

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

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CTX-M-14      QTSVAVQQKLAALKSSGGRLGVALIDTADNTQVLYRGDERFFMCSTSKVMAAAVLKQSE 60
CTX-M-19      QTSVAVQQKLAALKSSGGRLGVALIDTADNTQVLYRGDERFFMCSTSKVMAAAVLKQSE 60
CTX-M-18      QTSVAVQQKLAALKSSGGRLGVALIDTADNTQVLYRGDERFFMCSTSKVMAAAVLKQSE 60
CTX-M-9       QTSVAVQQKLAALKSSGGRLGVALIDTADNTQVLYRGDERFFMCSTSKVMAAAVLKQSE 60
CTX-M-16      QTSVAVQQKLAALKSSGGRLGVALIDTADNTQVLYRGDERFFMCSTSKVMAAAVLKQSE 60
CTX-M-1       QTADVQQKLAELERQSGGRLGVALINTADNSQILYRADERFAMCSTSKVMAAAVLKKSE 60
CTX-M-3       QTADVQQKLAELERQSGGRLGVALINTADNSQILYRADERFAMCSTSKVMAAAVLKKSE 60
               **: ***** **:*****;****;*:***.****.*****.*****;**

CTX-M-14      TQKQLLNQFVEIKPADLVNYPPIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIQLGGP 120
CTX-M-19      TQKQLLNQFVEIKPADLVNYPPIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIQLGGP 120
CTX-M-18      TQKQLLNQFVEIKPADLVNYPPIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIQLGGP 120
CTX-M-9       TQKQLLNQFVEIKPADLVNYPPIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIQLGGP 120
CTX-M-16      TQKQLLNQFVEIKPADLVNYPPIAEKHVNGTMTLAELSAAALQYSDNTAMNKLIQLGGP 120
CTX-M-1       SEPNLLNQFVEIKKSDLVNYPPIAEKHVDGTMSLAELSAAALQYSDNVAMNKLIHVGGP 120
CTX-M-3       SEPNLLNQFVEIKKSDLVNYPPIAEKHVNGTMSLAELSAAALQYSDNVAMNKLIHVGGP 120
               :: :**** ***** ;*****;****;*****.*****;::***

CTX-M-14      GGVTAFAARAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRAMAQTLRQLTLGHALGETQRA 180
CTX-M-19      GGVTAFAARAIGDETFRLDRTESTLNTAIPGDPRDTTTPRAMAQTLRQLTLGHALGETQRA 180
CTX-M-18      GGVTAFAARAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRAMAQTLRQLTLGHALGETQRA 180
CTX-M-9       GGVTAFAARAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRAMAQTLRQLTLGHALGETQRA 180
CTX-M-16      GGVTAFAARAIGDETFRLDRTEPTLNTAIPGDPRDTTTPRAMAQTLRQLTLGHALGETQRA 180
CTX-M-1       ASVTAFARQLGDETFRLDRTEPTLNTAIPGDPRDTTTPRAMAQTLRNLTLGKALGDSQRA 180
CTX-M-3       ASVTAFARQLGDETFRLDRTEPTLNTAIPGDPRDTTTPRAMAQTLRNLTLGKALGDSQRA 180
               .,***** ;*****.*****.*****.*****;****;*****;::***

CTX-M-14      QLVTWLKGNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVITYFTQ 240
CTX-M-19      QLVTWLKGNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVITYFTQ 240
CTX-M-18      QLVTWLKGNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVITYFTQ 240
CTX-M-9       QLVTWLKGNTTGAASIRAGLPTSWTVGDKTGSGDYGTTNDIAVIWPQGRAPLVLVITYFTQ 240
CTX-M-16      QLVTWLKGNTTGAASIRAGLPTSWTAGDKTGSGGYGTTNDIAVIWPQGRAPLVLVITYFTQ 240
CTX-M-1       QLVTWLKGNTTGAASIQAGLPASWVVGDKTGSGDYGTTNDIAVIWPKDRAPLILVITYFTQ 240
CTX-M-3       QLVTWLKGNTTGAASIQAGLPASWVVGDKTGSGDYGTTNDIAVIWPKDRAPLILVITYFTQ 240
               *****;*****;****;*.*****.*****.*****;****;*****

CTX-M-14      PQQNAESRRDVLASAARIIAEG 263
CTX-M-19      PQQNAESRRDVLASAARIIAEG 263
CTX-M-18      PQQNAESRRDVLASAARIIAEG 263
CTX-M-9       PQQNAESRRDVLASAARIIAEG 263
CTX-M-16      PQQNAESRRDVLASAARIIAEG 263
CTX-M-1       PPKAESRRDVLASAAKIVTNG 263
CTX-M-3       PPKAESRRDVLASAAKIVTDGL 263
               ** :*****;*:::**

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Figure 3

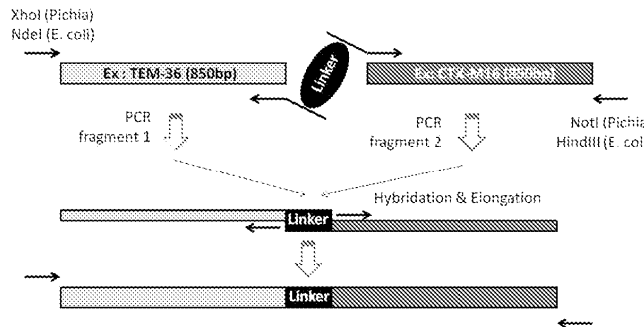


Figure 6

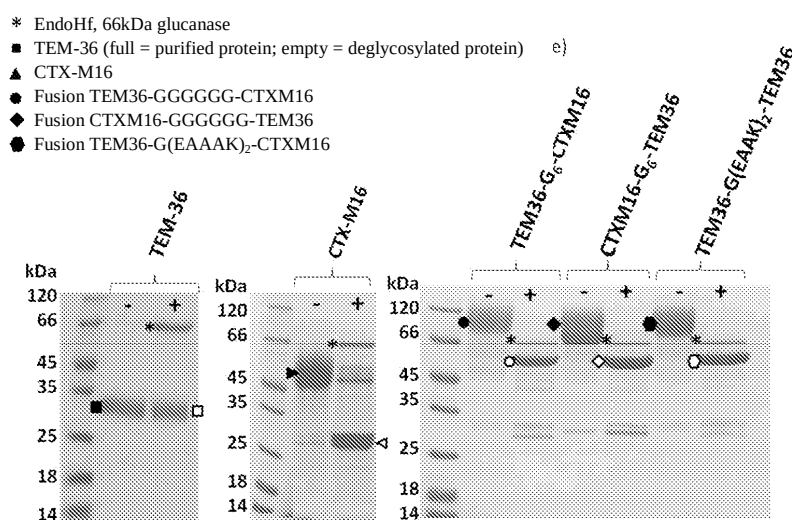


Figure 7

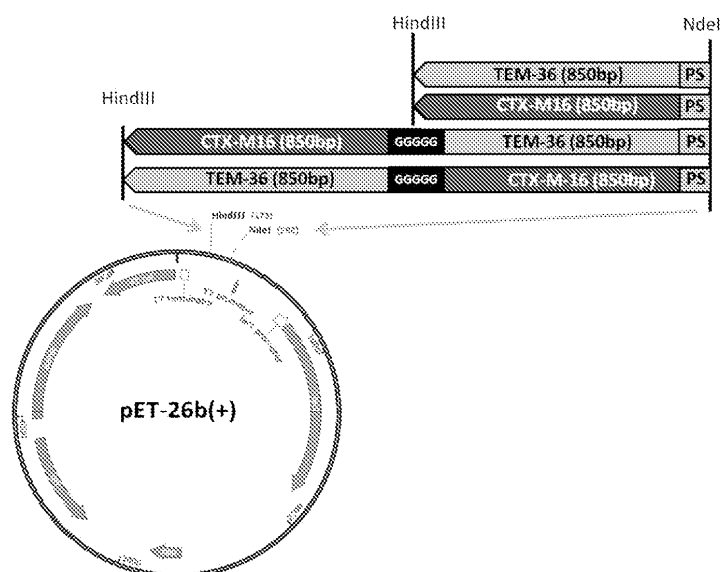


Figure 8

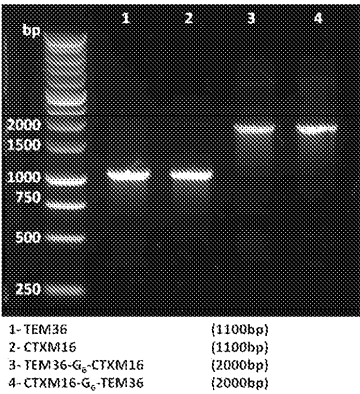


Figure 9

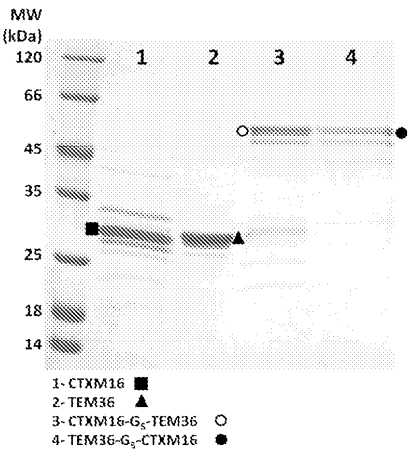
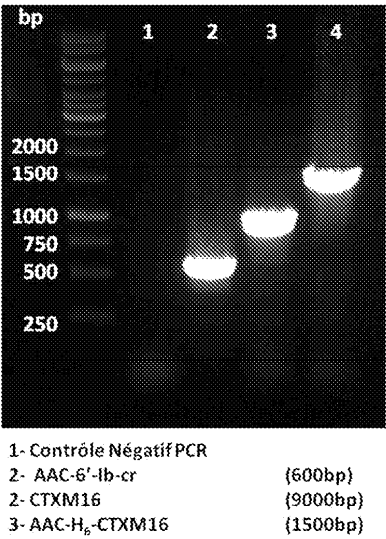


Figure 10



Negative PCR control

Figure 11

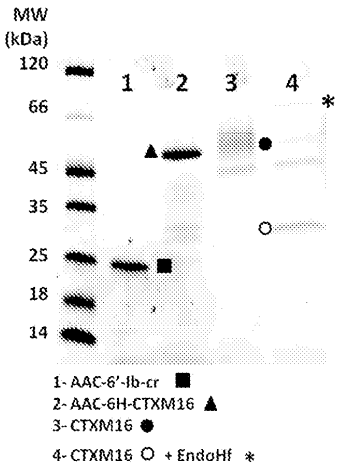


Figure 12

