pMXs: retroviral reprogramming vector maps

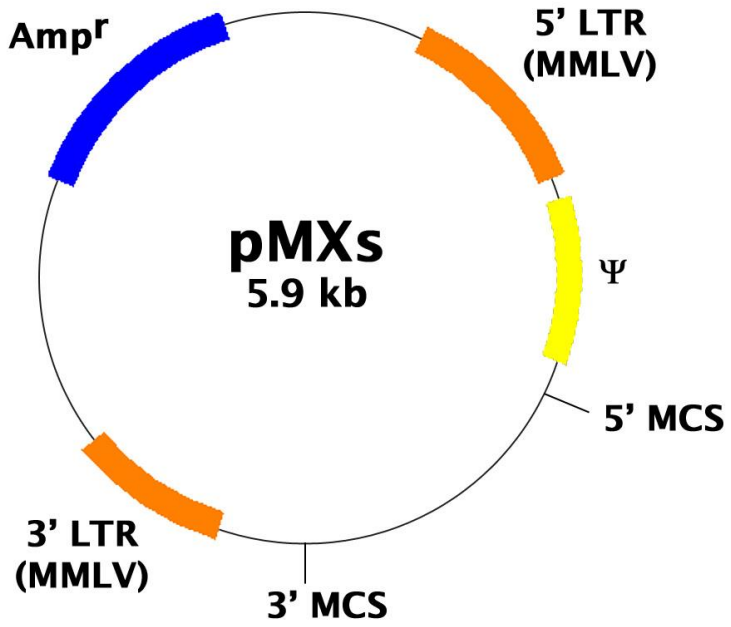
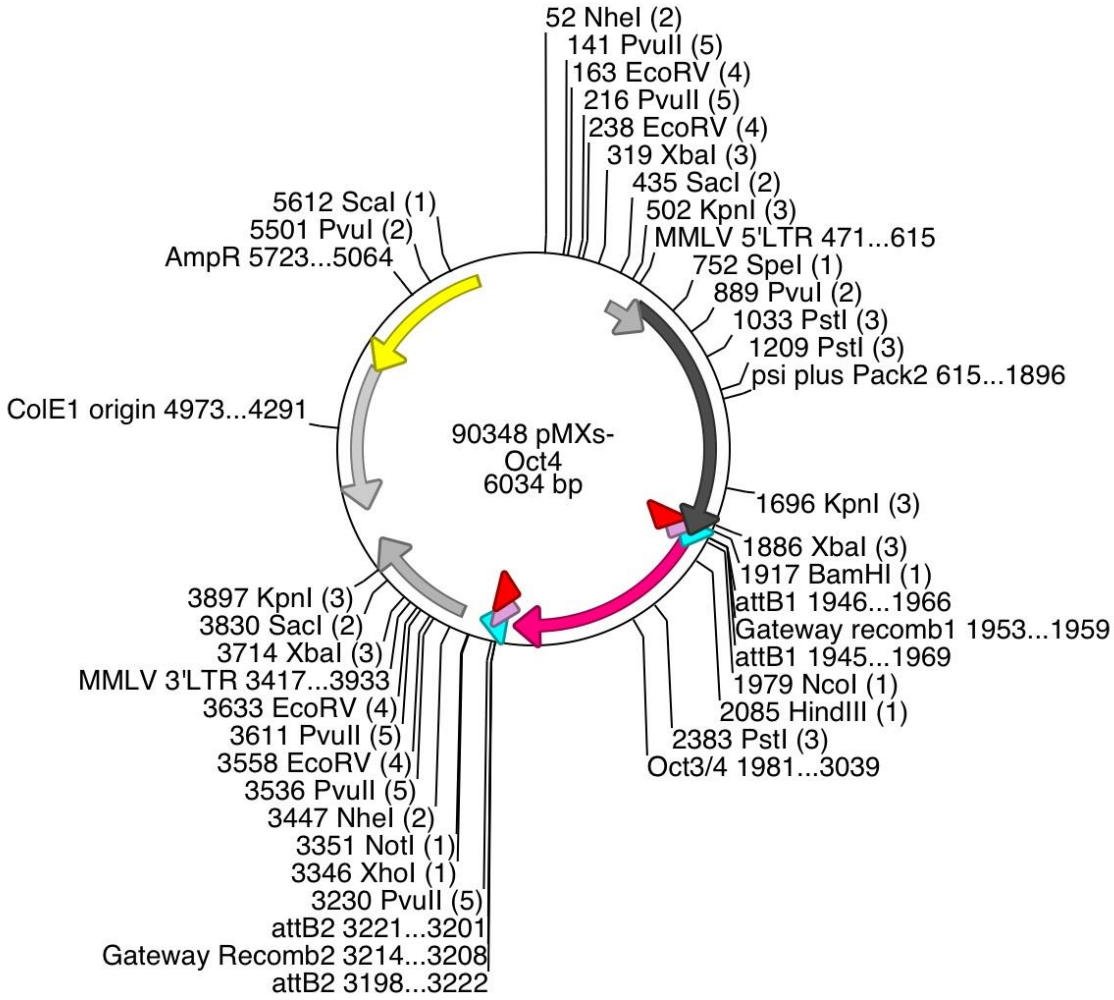


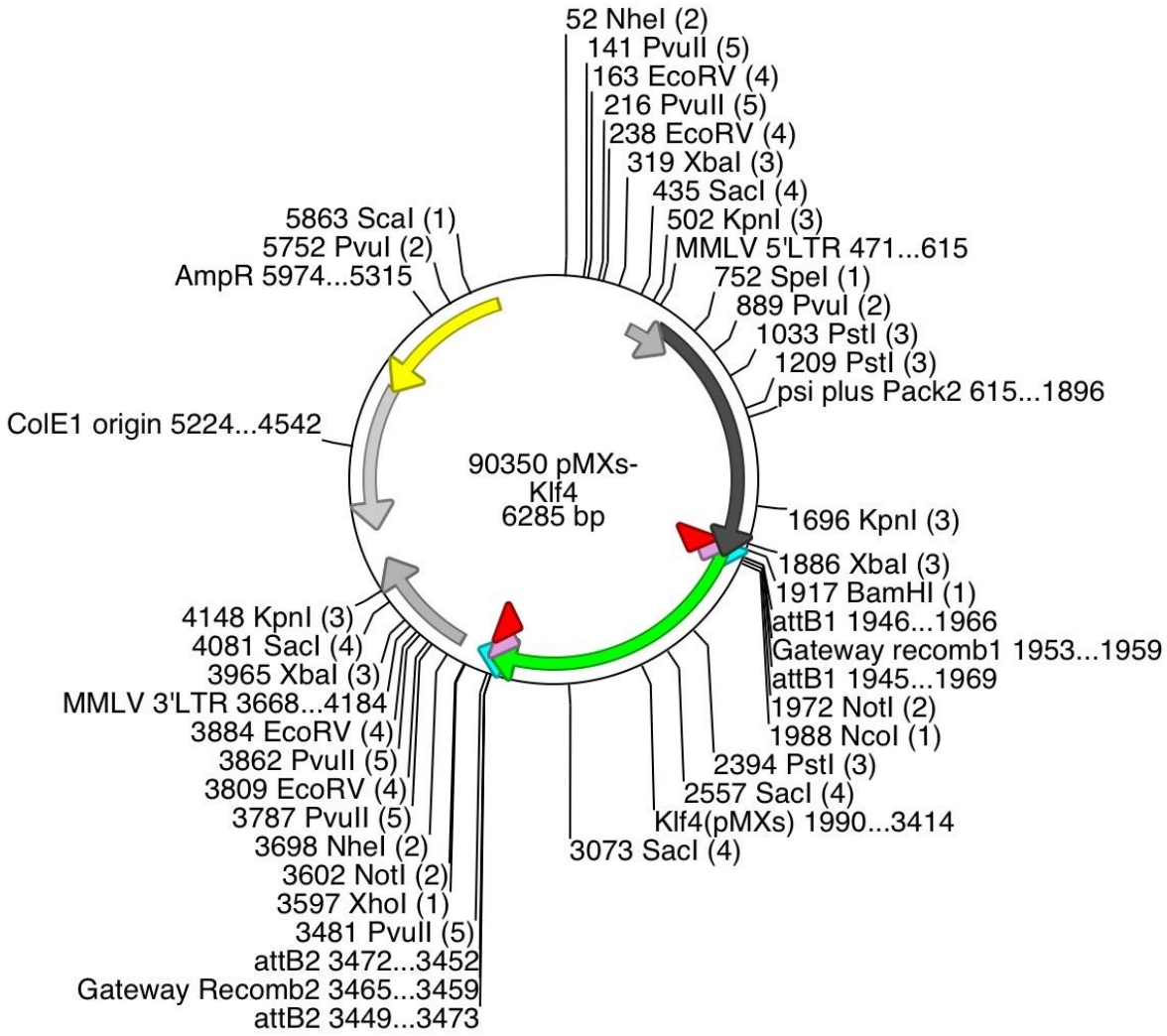
Figure 1. Schematic representation of pMXs retroviral vector.

5'-MCS:
• Enzyme Sites: 5'-PacI, BamHI, EcoRI, HindIII-3'
• MCS Sequence:
TTAATTAAGGATCCCAGTGTGGTGGTACGGGAATT
CAAGCTTGATC
3'-MCS:
• Enzyme Sites: 5'-EcoRI, XhoI, NotI, SalI-3'
• MCS Sequence:
GGCGGAATTCCAGCTGAGCGCCGGTCGCTACCAT
TACCAGTTGGTCTGGTGTCAAAAA
TAATAATAACCGGGCAGGCCATGTCTGCCCGTATTT
CGCGTAAGGAAATCCATTATGT
ACTATTTAAACTCGAGCGGCCGCCAGCACAGTGG
TCGACGATAA
Note: For optimal expression, both 5' MCS and 3' MCS should be used to clone gene of interest and replace the staffer sequence (partial LacZ) between them

pMXs-OCT4


52 NheI (2)
141 PvuII (5)
163 EcoRV (4)
216 PvuII (5)
238 EcoRV (4)
319 XbaI (3)
435 SacI (2)
502 KpnI (3)
MMLV 5'LTR 471...615
752 SpeI (1)
889 PvuI (2)
1033 PstI (3)
1209 PstI (3)
psi plus Pack2 615...1896
1696 KpnI (3)
1886 XbaI (3)
1917 BamHI (1)
attB1 1946...1966
Gateway recomb1 1953...1959
attB1 1945...1969
1979 NcoI (1)
2085 HindIII (1)
2383 PstI (3)
Oct3/4 1981...3039
3897 KpnI (3)
3830 SacI (2)
3714 XbaI (3)
MMLV 3'LTR 3417...3933
3633 EcoRV (4)
3611 PvuII (5)
3558 EcoRV (4)
3536 PvuII (5)
3447 NheI (2)
3351 NotI (1)
3346 XhoI (1)
3230 PvuII (5)
attB2 3221...3201
Gateway Recomb2 3214...3208
attB2 3198...3222
5612 ScaI (1)
5501 PvuI (2)
AmpR 5723...5064
ColE1 origin 4973...4291
90348 pMXs-
Oct4
6034 bp

pMXs-KLF4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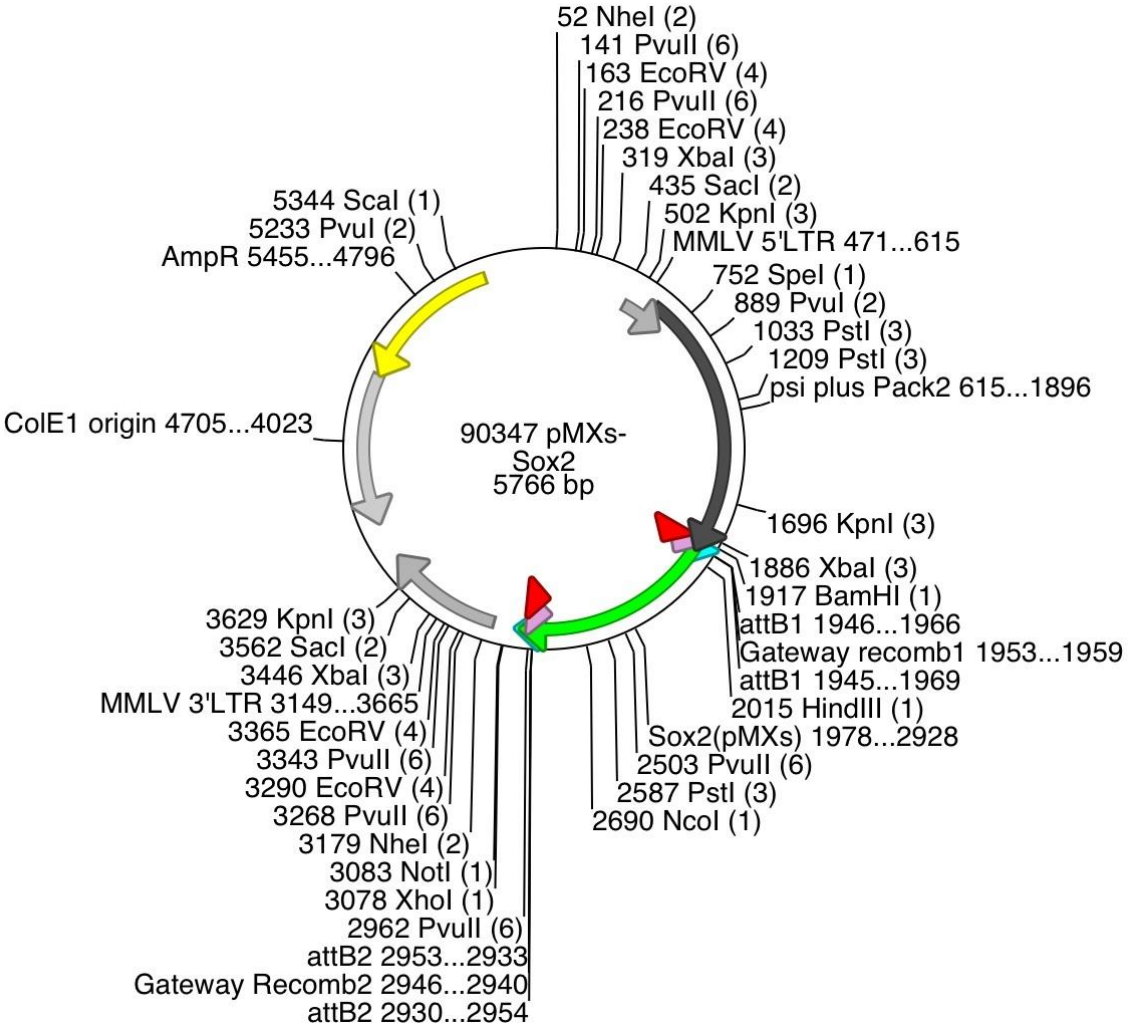
435 SacI (4)
502 KpnI (3)
MMLV 5'LTR 471...615
752 SpeI (1)
889 PvuI (2)
1033 PstI (3)
1209 PstI (3)
psi plus Pack2 615...1896
1696 KpnI (3)
1886 XbaI (3)
1917 BamHI (1)
attB1 1946...1966
Gateway recomb1 1953...1959
attB1 1945...1969
1972 NotI (2)
1988 NcoI (1)
2394 PstI (3)
2557 SacI (4)
Klf4(pMXs) 1990...3414
3073 SacI (4)
attB2 3449...3473
Gateway Recomb2 3465...3459
attB2 3472...3452
3481 PvuII (5)
3597 XhoI (1)
3602 NotI (2)
3698 NheI (2)
3787 PvuII (5)
3809 EcoRV (4)
3862 PvuII (5)
3884 EcoRV (4)
MMLV 3'LTR 3668...4184
3965 XbaI (3)
4081 SacI (4)
4148 KpnI (3)
ColE1 origin 5224...4542
AmpR 5974...5315
5752 PvuI (2)
5863 ScaI (1)
90350 pMXs-
Klf4
6285 bp

pMXs-SOX2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216 PvuII (6)
238 EcoRV (4)
319 XbaI (3)
435 SacI (2)
502 KpnI (3)
MMLV 5'LTR 471...615
752 SpeI (1)
889 PvuI (2)
1033 PstI (3)
1209 PstI (3)
psi plus Pack2 615...1896
1696 KpnI (3)
1886 XbaI (3)
1917 BamHI (1)
attB1 1946...1966
Gateway recomb1 1953...1959
attB1 1945...1969
2015 HindIII (1)
Sox2(pMXs) 1978...2928
2503 PvuII (6)
2587 PstI (3)
2690 NcoI (1)
3629 KpnI (3)
3562 SacI (2)
3446 XbaI (3)
MMLV 3'LTR 3149...3665
3365 EcoRV (4)
3343 PvuII (6)
3290 EcoRV (4)
3268 PvuII (6)
3179 NheI (2)
3083 NotI (1)
3078 XhoI (1)
2962 PvuII (6)
attB2 2953...2933
Gateway Recomb2 2946...2940
attB2 2930...2954
ColE1 origin 4705...4023
5344 ScaI (1)
5233 PvuI (2)
AmpR 5455...4796
90347 pMXs-Sox2
5766 bp