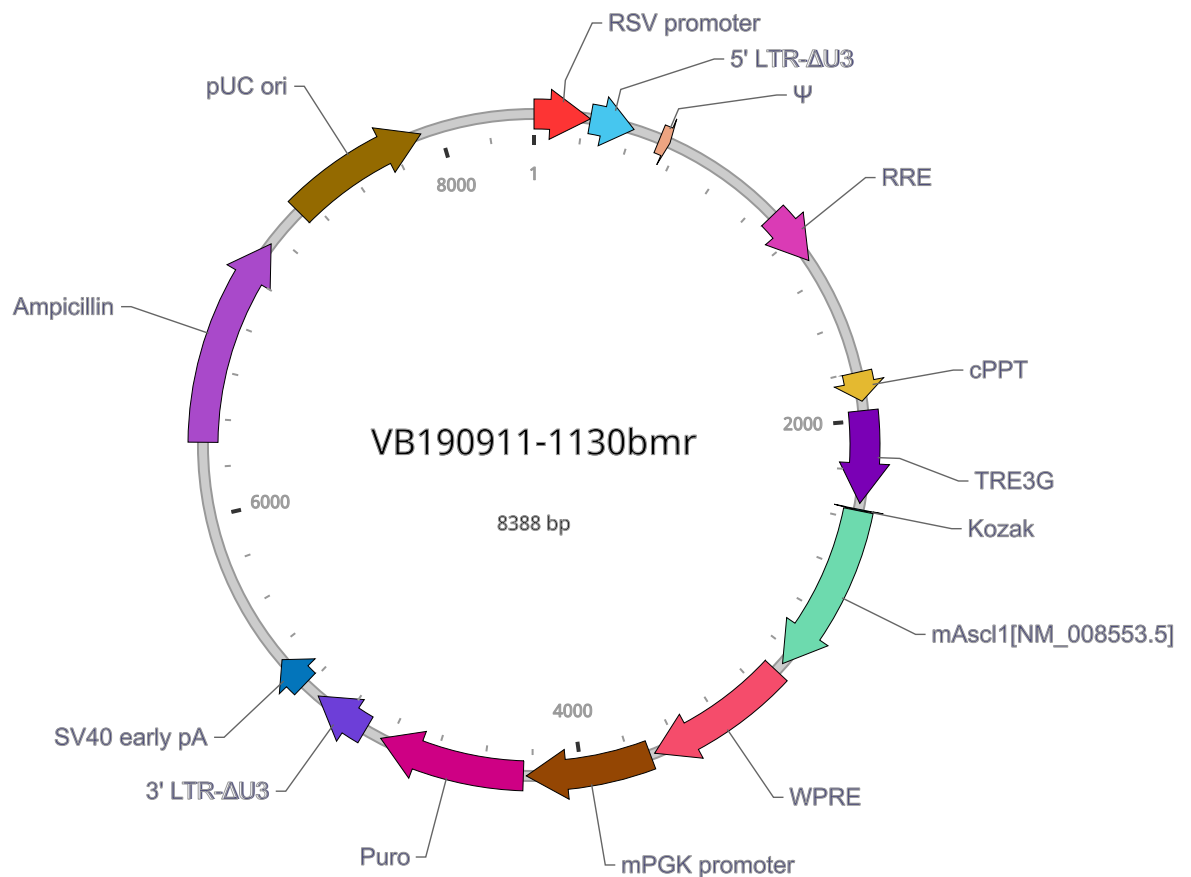


Vector Summary

Vector ID	VB190911-1130bmr
Vector Name	pLV[TetOn]-Puro-TRE3G>mAscl1[NM_008553.5]
Vector Size	8388 bp
Viral Genome Size	4913 bp
Vector Type	Mammalian Tet-On Inducible Gene Expression Lentiviral Vector
Inserted Promoter	TRE3G
Inserted ORF	mAscl1[NM_008553.5]
Inserted Marker	Puro
Plasmid Copy Number	High
Antibiotic Resistance	Ampicillin
Cloning Host	VB UltraStable (or alternative strain)

Vector Map



Vector Components

Name	Position	Size (bp)	Type	Description	Application notes
RSV promoter	■ 1-229	229	Promoter	Rous sarcoma virus enhancer/promoter	Strong promoter; drives transcription of viral RNA in packaging cells.
5' LTR-ΔU3	■ 230-410	181	LTR	Truncated HIV-1 5' long terminal repeat	Allows transcription of viral RNA and its packaging into virus.
Ψ	■ 521-565	45	Miscellaneous	HIV-1 packaging signal	Allows packaging of viral RNA into virus.
RRE	■ 1075-1308	234	Miscellaneous	HIV-1 Rev response element	Rev protein binding site that allows Rev-dependent nuclear export of viral RNA during viral packaging.
cPPT	■ 1803-1920	118	Miscellaneous	Central polypurine tract	Facilitates the nuclear import of HIV-1 cDNA through a central DNA flap.
TRE3G	■ 1959-2334	376	Promoter	Tetracycline-responsive element promoter (3rd generation)	Bound by transactivator Tet3G in the presence of tetracycline or its analogs (e.g. doxycycline); low background activity.
Kozak	■ 2359-2364	6	Miscellaneous	Kozak translation initiation sequence	Facilitates translation initiation of ATG start codon downstream of the Kozak sequence.
mAscl1[NM_008553.5]	■ 2365-3060	696	ORF	<i>None</i>	<i>None</i>
WPRE	■ 3099-3696	598	Miscellaneous	Woodchuck hepatitis virus posttranscriptional regulatory element	Enhances virus stability in packaging cells, leading to higher titer of packaged virus; enhances higher expression of transgenes.
mPGK promoter	■ 3715-4225	511	Promoter	Mouse phosphoglycerate kinase 1 promoter	Medium-strength promoter.
Puro	■ 4238-4837	600	ORF	Puromycin resistance gene	Allows cells to be resistant to puromycin.

Name	Position	Size (bp)	Type	Description	Application notes
3' LTR-ΔU3	■ 4908-5142	235	LTR	Truncated HIV-1 3' long terminal repeat	Allows packaging of viral RNA into virus; self-inactivates the 5' LTR by a copying mechanism during viral genome integration; contains polyadenylation signal for transcription termination.
SV40 early pA	■ 5215-5349	135	PolyA_signal	Simian virus 40 early polyadenylation signal	Allows transcription termination and polyadenylation of mRNA transcribed by Pol II RNA polymerase.
Ampicillin	■ 6303-7163	861	ORF	Ampicillin resistance gene	Allows E. coli to be resistant to ampicillin.
pUC ori	■ 7334-7922	589	Rep_origin	pUC origin of replication	Facilitates plasmid replication in E. coli; regulates high-copy plasmid number (500-700).

Note: Components added by user are listed in **bold red** text.

Vector Sequence

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1  AATGTAGTCT TATGCAATAC TCTTGTAGTC TTGCAACATG GTAACGATGA GTTAGCAACA TGCCTTACAA GGAGAGAAAA
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961  CAATTGAGAG AGTGAATTAT ATAAATATAA AGTAGTAAAA ATTGAACCAT TAGGAGTAGC ACCCAACAAG GCAAAGAGAA
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