All^{ele}ustrious pmTFP1-VSV-G

Catalog Number: **ABP-FP-TVSVG10**

Introduction

All^{ele}ustrious pmTFP1-VSV-G is a mammalian expression vector that expresses mTFP1 fused to the C-terminus of VSV-G, or Vesicular Stomatitis Indiana virus G protein precursor. The VSV-G protein typically mediates fusion with endosomal membrane.

The properties of All^{ele}ustrious mTFP1 are superior to those of the commonly used *Aequorea victoria* variant ECFP and which can be easily detected in the mitotic spindle of mammalian cells using standard CFP filter sets. In addition, the fluorescent signal from mTFP1 is significantly brighter than that from EGFP using standard GFP filter sets. mTFP1 also makes an excellent fluorescence resonance energy transfer (FRET) donor to yellow or orange fluorescent proteins.

Vesicular stomatitis virus (VSV) is a virus in the Rhabdoviridae family, Vesiculovirus genera. VSV can infect insects and mammals such as cattle. As one of the 5 proteins of this virus, the G protein enables viral entry to the cell by mediating both virus attachment to the host cell and fusion of the viral envelope with the endosomal membrane following endocytosis. VSV-G is commonly included in viral vectors because of its ability for allowing the virus to infect non-dividing cells like B cells.

Source

Engineered variant of *Clavularia sp*. fluorescent protein cFP484.

Recommended Use

To further optimize detection, the use of filter sets specific to the mTFP1 excitation and emission spectra is recommended.

Features

- More than 3-fold brighter than ECFP
- More than twice as photostable as ECFP
- Single emission peak
- Single-exponential fluorescence lifetime (τ = 3.2 ns)
- Can be co-imaged with red and yellow FPs
- Low sensitivity to acidic pH (fluorescence pKa=4.3)
- Mammalian expression vector ready to transfect your favorite cells
- True monomer that will not aggregate or cause non-specific interactions

Reconstitution

10 µg provided in lyophilized powder form. Reconstitute with 10 µL of nuclease-free water for a final concentration of 1 µg/µL.

Storage

Store at -20°C or at -80°C for long-term preservation.

Human CMV Immediate-Early

Promoter (CMV Promoter)........1-589

VSV-G..................................625-2160

Linker...................................2161-2208

mTFP1..................................2209-2919

SV40 PolyA Signal....................3071-3121

bla Promoter..............................3660-3764

Ampicillin Resistance Gene......3749-4609

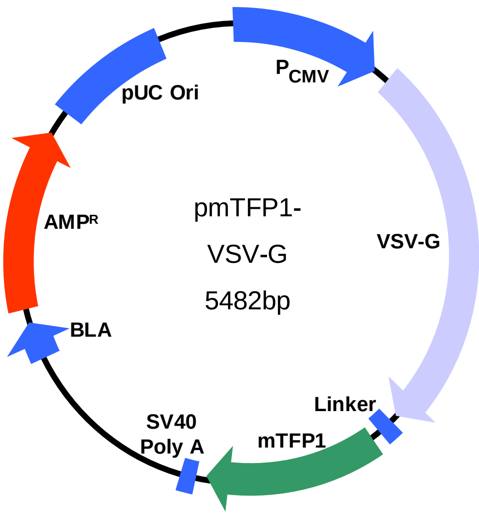
pUC Origin.................................4758-5400

Upstream Sequencing Primer:

Universal CMV Promoter Primer

Downstream Sequencing Primer:

SV40 Primer:GCTTT ATTTG TGAAA TTTGT GATGC TATTG C



References: Ai HW, Hazelwood KL, Davidson MW, Campbell RE. Fluorescent protein FRET pairs for ratiometric imaging of dual biosensors. *Nature Methods*. 2008 5(5): 401-03. Ai HW, Henderson JN, Remington SJ, Campbell RE. Directed evolution of a monomeric, bright, and photostable version of *Clavularia* cyan fluorescent protein: structural characterization and applications in fluorescence imaging. *Biochem J*. 2006. Shaner NC, Steinbach PA, Tsien RY. A guide to choosing fluorescent proteins. *Nat Methods*. Manley S, Gillette JM, Patterson GH, Shroff H, Hess HF, Betzig E, Lippincott-Schwartz J. " High-density mapping of single-molecule trajectories with photoactivated localization microscopy. " *Nat Methods.* 2008 Feb;5(2):155-7. Nokes RL, Fields IC, Collins RN, Folsch H. "Rab13 regulates membrane trafficking between TGN and recycling endosomes in polarized epithelial cells" *J Cell Biol.* 2008 8;182(5):845-53.

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Alleleustrious pmTFP1-VSV-G

Sequence

1 TAGTTATTAA TAGTAATCAA TTACGGGGTC ATTAGTTCAT AGCCCATATA TGGAGTTCCG
61 CGTTACATAA CTTACGGTAA ATGGCCCGCC TGGCTGACCG CCCAACGACC CCCGCCCATT
121 GACGTCAATA ATGACGTATG TTCCCATAGT AACGCCAATA GGGACTTTCC ATTGACGTCA
181 ATGGGTGGAG TATTTACGGT AAACTGCCCA CTTGGCAGTA CATCAAGTGT ATCATATGCC
241 AAGTACGCCC CCTATTGACG TCAATGACGG TAAATGGCCC GCCTGGCATT ATGCCCAGTA
301 CATGACCTTA TGGGACTTTC CTACTTGGCA GTACATCTAC GTATTAGTCA TCGCTATTAC
361 CATGGTGATG CGGTTTTGGC AGTACATCAA TGGGCGTGGA TAGCGGTTTG ACTCACGGGG
421 ATTTCCAAGT CTCCACCCCA TTGACGTCAA TGGGAGTTTG TTTTGGCACC AAAATCAACG
481 GGACTTTCCA AAATGTCGTA ACAACTCCGC CCCATTGACG CAAATGGGCG GTAGGCGTGT
541 ACGGTGGGAG GTCTATATAA GCAGAGCTGG TTTAGTGAAC CGTCAGATCC GCTAGCGCTA
601 CCGGACTCAG ATCTCGCCGC CACCATGAAG TGCCTTTTGT ACTTAGCTTT TTTATTCATC
661 GGGGTGAATT GCAAGTTCAC CATAGTTTTT CCACACAACC AAAAAGGAAA CTGGAAAAAT
721 GTTCCTTCCA ATTACCATTA TTGCCCGTCA AGCTCAGATT TAAATTGGCA TAATGACTTA
781 ATAGGCACAG CCTTACAAGT CAAAATGCCC AAGAGTCACA AGGCTATTCA AGCAGACGGT
841 TGGATGTGTC ATGCTTCCAA ATGGGTCACT ACTTGTGATT TCCGCTGGTA CGGACCGAAG
901 TATATAACAC ATTCCATCCG ATCCTTCACT CCATCTGTAG AACAATGCAA GGAAAGCATT
961 GAACAAACGA AACAAGGAAC TTGGCTGAAT CCAGGCTTCC CTCCTCAAAG TTGTGGATAT
1021 GCAACTGTGA CGGATGCTGA AGCAGCGATT GTCCAGGTGA CTCCTCACCA TGTGCTTGTT
1081 GATGAATACA CAGGAGAATG GGTTGATTCA CAGTTCATCA ACGGAAAATG CAGCAATGAC
1141 ATATGCCCCA CTGTCCATAA CTCCACAACC TGGCATTCCG ACTATAAGGT CAAAGGGCTA
1201 TGTGATTCTA ACCTCATTTC CATGGACATC ACCTCCTTCT CAGAGGACGG AGAGCTATCA
1261 TCCCTAGGAA AGGAGGGCAC AGGGTTCAGA AGTAACTACT TTGCTTATGA AACCGGAGAC
1321 AAGGCCTGCA AAATGCAGTA CTGCAAGCAT TGGGGAGTCA GACTCCCATC AGGTGTCTGG
1381 TTCGAGATGG CTGATAAGGA TCTCTTTGCT GCAGCCAGAT TCCCTGAATG CCCAGAAGGG
1441 TCAAGTATCT CTGCTCCATC TCAGACCTCA GTGGATGTAA GTCTCATTCA GGACGTTGAG
1501 AGGATCTTGG ATTATTCCCT CTGCCAAGAA ACCTGGAGCA AAATCAGAGC GGGTCTTCCC
1561 ATCTCTCCAG TGGATCTCAG CTATCTTGCT CCTAAAAACC CAGGAACCGG TCCTGTCTTT
1621 ACCATAATCA ATGGTACCCT AAAATACTTT GAGACCAGAT ACATCAGAGT CGATATTGCT
1681 GCTCCAATCC TCTCAAGAAT GGTCGGAATG ATCAGTGGAA CTACCACAGA AAGGGAACTG
1741 TGGGATGACT GGGCTCCATA TGAAGACGTG GAAATTGGAC CCAATGGAGT TCTGAGGACC
1801 AGTTTAGGAT ATAAGTTTCC TTTATATATG ATTGGACATG GTATGTTGGA CTCCGATCTT
1861 CATCTTAGCT CAAAGGCTCA GGTGTTTGAA CATCCTCACA TTCAAGACGC TGCTTCGCAG
1921 CTTCCTGATG ATGAGACTTT ATTTTTTGGT GATACTGGGC TATCCAAAAA TCCAATCGAG
1981 TTTGTAGAAG GTTGGTTCAG TAGTTGGAAG AGCTCTATTG CCTCTTTTTT CTTTATCATA
2041 GGGTTAATCA TTGGACTATT CTTGGTTCTC CGAGTTGGTA TTTATCTTTG CATTAAATTA
2101 AAGCACACCA AGAAAAGACA GATTTATACA GACATAGAGA TGAACCGACT TGGAAACAGA
2161 ATTCTGCAGT CGACGGTACC GCGGGCCCGG GATCCACCGG TCGCCACCAT GGTGAGCAAG
2221 GGCGAGGAGA CCACAATGGG CGTAATCAAG CCCGACATGA AGATCAAGCT GAAGATGGAG
2281 GGCAACGTGA ATGGCCACGC CTTCGTGATC GAGGGCGAGG GCGAGGGCAA GCCCTACGAC
2341 GGCACCAACA CCATCAACCT GGAGGTGAAG GAGGGAGCCC CCCTGCCCTT CTCCTACGAC
2401 ATTCTGACCA CCGCGTTCGC CTACGGCAAC AGGGCCTTCA CCAAGTACCC CGACGACATC
2461 CCCAACTACT TCAAGCAGTC CTTCCCCGAG GGCTACTCTT GGGAGCGCAC CATGACCTTC
2521 GAGGACAAGG GCATCGTGAA GGTGAAGTCC GACATCTCCA TGGAGGAGGA CTCCTTCATC
2581 TACGAGATAC ACCTCAAGGG CGAGAACTTC CCCCCCAACG GCCCCGTGAT GCAGAAGAAG
2641 ACCACCGGCT GGGACGCCTC CACCGAGAGG ATGTACGTGC GCGACGGCGT GCTGAAGGGC
2701 GACGTCAAGC ACAAGCTGCT GCTGGAGGGC GGCGGCCACC ACCGCGTTGA CTTCAAGACC
2761 ATCTACAGGG CCAAGAAGGC GGTGAAGCTG CCCGACTATC ACTTTGTGGA CCACCGCATC
2821 GAGATCCTGA ACCACGACAA GGACTACAAC AAGGTGACCG TTTACGAGAG CGCCGTGGCC
2881 CGCAACTCCA CCGACGGCAT GGACGAGCTG TACAAGTAAG CGGCCGCGAC TCTAGATCAT
2941 AATCAGCCAT ACCACATTTG TAGAGGTTTT ACTTGCTTTA AAAAACCTCC CACACCTCCC
3001 CCTGAACCTG AAACATAAAA TGAATGCAAT TGTTGTTGTT AACTTGTTTA TTGCAGCTTA
3061 TAATGGTTAC AAATAAAGCA ATAGCATCAC AAATTTCACA AATAAAGCAT TTTTTTCACT
3121 GCATTCTAGT TGTGGTTTGT CCAAACTCAT CAATGTATCT TAACGCGTCC TGTAGCGGCG
3181 CATTAAGCGC GGCGGGTGTG GTGGTTACGC GCAGCGTGAC CGCTACACTT GCCAGCGCCC
3241 TAGCGCCCGC TCCTTTCGCT TTCTTCCCTT CCTTTCTCGC CACGTTCGCC GGCTTTCCCC
3301 GTCAAGCTCT AAATCGGGGG CTCCCTTTAG GGTTCCGATT TAGTGCTTTA CGGCACCTCG
3361 ACCCCAAAAA ACTTGATTAG GGTGATGGTT CACGTAGTGG GCCATCGCCC TGATAGACGG
3421 TTTTTCGCCC TTTGACGTTG GAGTCCACGT TCTTTAATAG TGGACTCTTG TTCCAAACTG
3481 GAACAACACT CAACCCTATC TCGGTCTATT CTTTTGATTT ATAAGGGATT TTGCCGATTT
3541 CGGCCTATTG GTTAAAAAAT GAGCTGATTT AACAAAAATT TAACGCGAAT TTTAACAAAA
3601 TATTAACGCT TACAATTTAG GTGGCACTTT TCGGGGAAAT GTGCGCGGAA CCCCTATTTG
3661 TTTATTTTTC TAAATACATT CAAATATGTA TCCGCTCATG AGACAATAAC CCTGATAAAT
3721 GCTTCAATAA TATTGAAAAA GGAAGAGTAT GAGTATTCAA CATTTCCGTG TCGCCCTTAT
3781 TCCCTTTTTT GCGGCATTTT GCCTTCCTGT TTTTGCTCAC CCAGAAACGC TGGTGAAAGT
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3901 CGGTAAGATC CTTGAGAGTT TTCGCCCCGA AGAACGTTTT CCAATGATGA GCACTTTTAA
3961 AGTTCTGCTA TGTGGCGCGG TATTATCCCG TATTGACGCC GGGCAAGAGC AACTCGGTCG
4021 CCGCATACAC TATTCTCAGA ATGACTTGGT TGAGTACTCA CCAGTCACAG AAAAGCATCT
4081 TACGGATGGC ATGACAGTAA GAGAATTATG CAGTGCTGCC ATAACCATGA GTGATAACAC
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4321 ATTAACTGGC GAACTACTTA CTCTAGCTTC CCGGCAACAA TTAATAGACT GGATGGAGGC
4381 GGATAAAGTT GCAGGACCAC TTCTGCGCTC GGCCCTTCCG GCTGGCTGGT TTATTGCTGA
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4501 TAAGCCCTCC CGTATCGTAG TTATCTACAC GACGGGGAGT CAGGCAACTA TGGATGAACG
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5221 GGTAAGCGGC AGGGTCGGAA CAGGAGAGCG CACGAGGGAG CTTCCAGGGG GAAACGCCTG
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5461 TAACCGTATT ACCGCCATGC AT
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Enzyme	Cuts	Positions	Sequence
AatI	1	1324	agg/cct
AatII	5	125 178 261 447 2705	gacgt/c
Acc113I	2	1339 4055	agt/act
Acc16I	1	4313	tgc/gca
Acc65I	2	1633 2175	g/gtacc
AccB1I	6	465 1633 2175 2341 3352 4583	g/gyrcc
AccB7I	2	1169 2648	ccannnn/ntgg
AccBSI	3	1552 3252 3697	gagcgg
AccI	1	2170	gt/mkac
AcsI	4	2159 3091 3576 3587	r/aatty
AcyI	7	122 175 258 444 2654 2702 3996	gr/cgyc
AfeI	1	596	agc/gct
AflIII	2	3163 5424	a/crygt
AgeI	2	1606 2196	a/ccggt
AhdI	1	4536	gacnnn/nngtc
Alw21I	4	2014 3868 3953 5114	gwgcw/c
Alw44I	2	3864 5110	g/tgcac
AlwNI	1	5015	cagnnn/ctg
Ama87I	2	2186 2485	c/ycgrg
Aor51HI	1	596	agc/gct
ApaI	1	2187	gggcc/c
ApaLI	2	3864 5110	g/tgcac
ApoI	4	2159 3091 3576 3587	r/aatty
AseI	2	7 4361	at/taat
AsnI	2	7 4361	at/taat
Asp700I	1	3936	gaann/nnttc
Asp718I	2	1633 2175	g/gtacc
AspEI	1	4536	gacnnn/nngtc
AspHI	4	2014 3868 3953 5114	gwgcw/c
AvaI	2	2186 2485	c/ycgrg
AviII	1	4313	tgc/gca
AvrII	1	1263	c/ctagg
BalI	1	2294	tgg/cca
BamHI	1	2190	g/gatcc
BanI	6	465 1633 2175 2341 3352 4583	g/gyrcc
BanII	5	1755 2014 2187 2379 3322	grgcy/c
BbiII	7	122 175 258 444 2654 2702 3996	gr/cgyc
BbsI	3	1558 1767 2642	gaagac
Bbv12I	4	2014 3868 3953 5114	gwgcw/c
Bbv16II	3	1558 1767 2642	gaagac
BcgI	2	1682 4020	cgannnnnntgc
BclI	1	1709	t/gatca
BcoI	2	2186 2485	c/ycgrg
BglI	5	90 212 283 2776 4418	gccnnnn/nggc
BglII	1	609	a/gatct
BlnI	1	1263	c/ctagg
BpiI	3	1558 1767 2642	gaagac
BpmI	5	1538 1570 2364 2727 4451	ctggag
BpuAI	3	1558 1767 2642	gaagac
BsaAI	3	340 2676 3393	yac/gtr
BsaBI	3	1397 1859 2939	gatnn/nnatc
BsaHI	7	122 175 258 444 2654 2702 3996	gr/cgyc
BsaI	3	1656 2232 4469	ggtctc
BsaMI	4	1178 1431 3027 3126	gaatgc
BsaOI	5	2201 2924 4018 4167 5090	cgry/cg
BsaWI	7	600 1312 1606 2196 4240 5071 5218	w/ccggw
Bse118I	5	1606 2196 2644 3288 4451	r/ccggy
Bse8I	3	1397 1859 2939	gatnn/nnatc
BseRI	4	1006 1066 2229 2568	gaggag
Bsh1285I	5	2201 2924 4018 4167 5090	cgry/cg
Bsh1365I	3	1397 1859 2939	gatnn/nnatc
BshNI	6	465 1633 2175 2341 3352 4583	g/gyrcc
BsiEI	5	2201 2924 4018 4167 5090	cgry/cg
BsiHKAI	4	2014 3868 3953 5114	gwgcw/c
BsiI	2	3872 5256	ctcgtg
BsmI	4	1178 1431 3027 3126	gaatgc
BsoBI	2	2186 2485	c/ycgrg
Bsp120I	1	2183	g/ggccc
Bsp1407I	1	2909	t/gtaca
Bsp143II	5	598 2873 3238 3246 5184	rgcgc/y
Bsp19I	4	360 1220 2207 2558	c/catgg
BspCI	1	4167	cgat/cg
BspHI	2	3696 4704	t/catga
BspLU11I	1	5424	a/catgt
BsrBI	3	1552 3252 3697	gagcgg
BsrBRI	3	1397 1859 2939	gatnn/nnatc
BsrDI	3	1138 4300 4482	gcaatg
BsrFI	5	1606 2196 2644 3288 4451	r/ccggy
BsrGI	1	2909	t/gtaca
BssAI	5	1606 2196 2644 3288 4451	r/ccggy
BssSI	2	3872 5256	ctcgtg
BssT1I	5	360 1220 1263 2207 2558	c/cwwgg
BstD102I	3	1552 3252 3697	gagcgg
BstDSI	6	360 1220 2179 2207 2558 2873	c/crygg
BstEII	1	2853	g/gtnacc
BstH2I	5	598 2873 3238 3246 5184	rgcgc/y
BstI	1	2190	g/gatcc
BstMCI	5	2201 2924 4018 4167 5090	cgry/cg
BstPI	1	2853	g/gtnacc
BstSFI	8	935 1409 2164 2763 3170 4290 4968 5159	c/tryag
BstSNI	1	340	tac/gta
BstX2I	13	585 609 1398 1502 1572 2190 2822 3889 3906 4674 4686 4772 4783	r/gatcy
BstXI	1	2358	ccannnnn/ntgg
BstYI	13	585 609 1398 1502 1572 2190 2822 3889 3906 4674 4686 4772 4783	r/gatcy
BstZI	1	2921	c/ggccg
CciNI	1	2921	gc/ggccgc
Cfr10I	5	1606 2196 2644 3288 4451	r/ccggy
Cfr42I	1	2182	ccgc/gg
Cfr9I	1	2186	c/ccggg
CfrI	4	2292 2733 2921 4143	y/ggccr
CpoI	1	892	cg/gwccg
CspI	1	892	cg/gwccg
DraI	5	761 2979 3958 4650 4669	ttt/aaa
DraII	1	2432	rg/gnccy
DraIII	3	1071 2805 3396	cacnnn/gtg
DrdI	3	1186 3440 5322	gacnnnn/nngtc
DsaI	6	360 1220 2179 2207 2558 2873	c/crygg
EaeI	4	2292 2733 2921 4143	y/ggccr
EagI	1	2921	c/ggccg
Eam1104I	2	2012 3747	ctcttc
Eam1105I	1	4536	gacnnn/nngtc
EarI	2	2012 3747	ctcttc
Ecl136II	1	2012	gag/ctc
EclHKI	1	4536	gacnnn/nngtc
EclXI	1	2921	c/ggccg
Eco105I	1	340	tac/gta
Eco130I	5	360 1220 1263 2207 2558	c/cwwgg
Eco147I	1	1324	agg/cct
Eco24I	5	1755 2014 2187 2379 3322	grgcy/c
Eco255I	2	1339 4055	agt/act
Eco31I	3	1656 2232 4469	ggtctc
Eco47III	1	596	agc/gct
Eco52I	1	2921	c/ggccg
Eco57I	5	1042 2274 2697 3854 4902	ctgaag
Eco64I	6	465 1633 2175 2341 3352 4583	g/gyrcc
Eco88I	2	2186 2485	c/ycgrg
Eco91I	1	2853	g/gtnacc
EcoICRI	1	2012	gag/ctc
EcoNI	1	1267	cctnn/nnnagg
EcoO109I	1	2432	rg/gnccy
EcoO65I	1	2853	g/gtnacc
EcoRI	1	2159	g/aattc
EcoT14I	5	360 1220 1263 2207 2558	c/cwwgg
EcoT22I	1	5481	atgca/t
ErhI	5	360 1220 1263 2207 2558	c/cwwgg
Esp1396I	2	1169 2648	ccannnn/ntgg
FauNDI	3	234 1141 1758	ca/tatg
FbaI	1	1709	t/gatca
FriOI	5	1755 2014 2187 2379 3322	grgcy/c
FspI	1	4313	tgc/gca
GsuI	5	1538 1570 2364 2727 4451	ctggag
HaeII	5	598 2873 3238 3246 5184	rgcgc/y
Hin1I	7	122 175 258 444 2654 2702 3996	gr/cgyc
HincII	3	2171 2748 3040	gty/rac
HindII	3	2171 2748 3040	gty/rac
HpaI	1	3040	gtt/aac
Hsp92I	7	122 175 258 444 2654 2702 3996	gr/cgyc
KpnI	2	1637 2179	ggtac/c
Ksp22I	1	1709	t/gatca
Ksp632I	2	2012 3747	ctcttc
KspI	1	2182	ccgc/gg
MamI	3	1397 1859 2939	gatnn/nnatc
MfeI	1	3027	c/aattg
MflI	13	585 609 1398 1502 1572 2190 2822 3889 3906 4674 4686 4772 4783	r/gatcy
MluI	1	3163	a/cgcgt
MluNI	1	2294	tgg/cca
Mph1103I	1	5481	atgca/t
MroNI	1	3288	g/ccggc
MscI	1	2294	tgg/cca
MslI	9	365 661 1219 2137 2209 2557 3765 4124 4283	caynn/nnrtg
Msp17I	7	122 175 258 444 2654 2702 3996	gr/cgyc
MspA1I	5	884 2181 3900 4841 5086	cmg/ckg
MunI	1	3027	c/aattg
Mva1269I	4	1178 1431 3027 3126	gaatgc
NaeI	1	3290	gcc/ggc
NcoI	4	360 1220 2207 2558	c/catgg
NdeI	3	234 1141 1758	ca/tatg
NgoAIV	1	3288	g/ccggc
NgoMI	1	3288	g/ccggc
NheI	1	591	g/ctagc
NotI	1	2921	gc/ggccgc
NsiI	1	5481	atgca/t
NspBII	5	884 2181 3900 4841 5086	cmg/ckg
NspI	1	5428	rcatg/y
PflMI	2	1169 2648	ccannnn/ntgg
PinAI	2	1606 2196	a/ccggt
Ple19I	1	4167	cgat/cg
Pme55I	1	1324	agg/cct
Ppu10I	1	5477	a/tgcat
PshBI	2	7 4361	at/taat
Psp124BI	1	2014	gagct/c
Psp1406I	2	3934 4307	aa/cgtt
PspAI	1	2186	c/ccggg
PspALI	1	2188	ccc/ggg
PspEI	1	2853	g/gtnacc
PspOMI	1	2183	g/ggccc
PstI	2	1413 2168	ctgca/g

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Alleleustrious pmTFP1-VSV-G

PstNHI	1	591	g/ctagc
PvuI	1	4167	cgat/cg
RcaI	2	3696 4704	t/catga
RsrII	1	892	cg/gwccg
SacI	1	2014	gagct/c
SacII	1	2182	ccgc/gg
SalI	1	2169	g/tcgac
SapI	1	2013	gctcttc
ScaI	2	1339 4055	agt/act
SfcI	8	935 1409 2164 2763 3170 4290 4968 5159	c/tryag
Sfr303I	1	2182	ccgc/gg
SmaI	1	2188	ccc/ggg
SmiI	1	761	attt/aaat
SnaBI	1	340	tac/gta
SseBI	1	1324	agg/cct
SspBI	1	2909	t/gtaca
SspI	2	3601 3731	aat/att
SstI	1	2014	gagct/c
SstII	1	2182	ccgc/gg
StuI	1	1324	agg/cct
StyI	5	360 1220 1263 2207 2558	c/cwwgg
SwaI	1	761	attt/aaat
Van91I	2	1169 2648	ccannnn/ntgg
VneI	2	3864 5110	g/tgcac
VspI	2	7 4361	at/taat
XbaI	1	2931	t/ctaga
XcmI	3	1373 1566 2895	ccannnnn/nnnntgg
XhoII	13	585 609 1398 1502 1572 2190 2822 3889 3906 4674 4686 4772 4783	r/gatcy
XmaI	1	2186	c/ccggg
XmaIII	1	2921	c/ggccg
XmnI	1	3936	gaann/nnttc
Zsp2I	1	5481	atgca/t

The following enzymes do not cut:

AccIII, AclNI, AflII, AocI, AscI, AspI, AtsI, BanIII, BbeI, BbrPI, BbuI, BfrI, BlpI, Bpu1102I, Bpu14I, Bsa29I, BscI, Bse21I, BseAI, BseCI, BsePI, BsgI, BsiMI, BsiWI, BsmBI, Bsp106I, Bsp119I, Bsp13I, Bsp1720I, Bsp68I, BspDI, BspEI, BspMI, BspTI, BspXI, BssHII, Bst1107I, Bst98I, BstBI, Bsu15I, Bsu36I, CelII, ClaI, Csp45I, CvnI, Eco32I, Eco72I, Eco81I, EcoRV, EheI, Esp3I, FseI, HindIII, KasI, Kpn2I, LspI, MroI, MspCI, NarI, NruI, NspV, PacI, PaeI, PaeR7I, Pfl23II, PmaCI, PmeI, PmlI, PpuMI, PshAI, Psp5II, PspLI, PvuII, SbfI, SexAI, SfiI, Sfr274I, SfuI, SgfI, SgrAI, SpeI, SphI, SplI, SrfI, Sse8387I, SunI, Tth111I, Vha464I, XhoI

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All^ele^ustrious pmTFP1-VSV-G

Related products:

Current All[ele]ustious Fluorescent Protein Family Members:
The founding member is mTFP1.

mTFPG3 is a green FP with 3 amino difference from mTFP1. It has a slightly red-shifted emission spectrum and is 1.5 fold brighter compared to EGFP. While being very bright, mTFPG3 can be photobleached within ~5 sec, about 30 times faster than EGFP, suitable for certain cell-based assays that require a bright FP with very short half-life.

mTFP0.7 is a precursor during the evolution of mTFP1. It has photo-switchable properties like Dronpa that cycles between fluorescent and nonfluorescent states. It may be developed into components in PALM/SIM applications.

Basic Vectors
Three vectors are available: pNCS-mWasabi, pmWasabi-N and pmWasabi-C.

Subcellular Marker Vectors
Twenty six vectors are available.

Vectors in Viral Vectors
All plasmid format vectors in Allele's Phoenix Retroviral vector or HiTiter Lentiviral Vectors.

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