



## pETG-20A

T7 promoter --> Lac operator XbaI  
GAAATTAATACGACTCACTATAGGGGAATTGTGAGCGGATAACAATTCCCCTCTAGAAAT  
CTTTAATTATGCTGAGTGATATCCCCTTAACACTCGCCTATTGTTAAGGGGAGATCTTTA

rbs  
AATTTTGTTTAACTTTAAGAAGGAGATATACAT**ATG**AGCGATAAAATTATTCACCTGACT  
TTAAAACAAATTGAAATTCTTCCTCTATATGTATACTCGCTATTTTAATAAGTGGACTGA  
METSerAspLysIleIleHisLeuThr

His-tag KpnI  
GACGACAGT...**297bp**...GGTTCTGGCCATATGCACCATCATCATCATCATGGTACC  
CTGCTGTCA...**TrxA**...CCAAGACCGGTATACGTGGTAGTAGTAGTAGTACCATGG  
AspAspSer...**99aa**...GlySerGlyHisMetHisHisHisHisHisHisSerSer

attR1 -->  
ATG**ACAAGTTT**GTACAAAAAAGCTGAACGAGAAACGTAAAATGATATAAATATCAATATA  
TAC**TGTTCAAACATGTT**TTTTCGACTTGCTCTTTGCATTTTACTATATTTATAGTTATAT  
MetThrSerLeuTyr**LysLys**AlaGluArgGluThr\*\*\*

TTAAATTAGATTTTGCATAAA.....**1574bp**.....TTGATATTTATATCATTTTAC  
AATTTAATCTAAAAGCTATTT...**Cam®**...**ccdB**...AACTATAAATATAGTAAAATG

<-- attR2 His-tag  
GTTTCTCGTTCAGCTTT**CTTGTACAAAGTGGT**GACTCGAGCACCACCACCACCACCCTG  
CAAAGAGCAAGTCGAAAGAACATG**TTTACCA**CTGAGCTCGTGGTGGTGGTGGTGGTGAC

### Single Cutters Listed by Site Order

80	EspI	1419	EcoRI	2142	CspI	3281	ApaI
80	Bpu1102I	1739	XmaIII	2282	XbaI	3520	EcoRV
158	XhoI	1739	EagI	2348	BglII	3576	HpaI
160	SciI	1739	Eco52I	2389	SgrAI	4916	Tth1111I
291	SalI	1739	NotI	2545	SphI	5055	SapI
304	BspMI	1874	Acc65I	2605	EcoNI	6064	
Eam1105I							
550	XmaI	1874	Asp718I	2754	ApaBI	6434	XorII
552	SrfI	1878	KpnI	3084	BclI	6434	PvuI
552	SmaI	2061	ClaI	3251	BstEII	7207	DraIII
1118	NcoI						

### Non Cutting Enzymes

AatII	AflIII	AgeI	AscI	AsuII	AvrII
Bsu36I	Csp45I	CvnI	Ecl136II	Eco72I	EcoICRI
FseI	HindIII	I-PpoI	MfeI	Mlu113I	MstII
NheI	NruI	NsiI	PacI	PinAI	PmaCI
PmeI	RleAI	SacI	SacII	SauI	SfiI
SnaBI	SpeI	SplI	SpoI	SstI	SstII
StuI	SunI	SwaI			