



T7 promoter → **lac operator** **Xba I** **rbs**
 --- T AAT ACG ACT CAC TAT → AGG GGA ATT GTG AGC GGA TAA CAA TTC CCC TCT AGA AAT AAT TTT GTT TAA CTT TAA GAA GGA GAT

Trx tag **Msc I** **His tag**
 ATA CAT ATG AGC ... 315bp ... CTG GCC GGT TCT GGT TCT GGC CAT ATG CAC CAT CAT CAT CAT TCT TCT GGT CTG GTG CCA CGC GGT TCT
 M S ... 105aa ... L A G S G S G H M H H H H H S S G L V P R G S
thrombin site

S tag **Bgl II** **Kpn I**
 GGT ATG AAA GAA ACC GCT GCT GCT AAA TTC GAA CGC CAG CAC ATG GAC AGC CCA GAT CTG GGT ACC GAC GAC GAC GAC AAG
 G M K E T A A A K F E R Q H M D S P D L G T D D D D K
enterokinase site

Nco I **EcoR V** **BamH I** **EcoR I** **Sac I** **Sal I** **Hind III** **Not I** **Xho I** **His tag**
 GCC ATG GCG ATA TCG GAT CCG AAT TCG AGC TCC GTC GAC AAG CTT GCG GCC GCA CTC GAG CAC CAC CAC CAC CAC TGA GAT CCG GCT GCT AAC
 A M A I S D P N S S S V D K L A A A L E H H H H H H Stop

Blp I **T7 terminator**
 AAA GCC CGA AAG GAA GCT GAG TTG GCT GCT GCC ACC GCT GAG CAA TAA CTA GCA TAA CCC CTT GGG GCC TCT AAA CGG GTC TTG AGG GGT TTT TTG ---