



## SUMOstar™ Gene Fusion Technology

ENHANCING FUNCTIONAL PROTEIN EXPRESSION AND  
PURIFICATION IN YEAST

### Yeast (*Saccharomyces*) Intracellular SUMOstar Expression System Vector Map and Sequence

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#### Catalog Numbers

2100 (Kit)  
2101 (Vector)

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## Polylinker

## Map

ATGGGTCATCACCATCATCATCACGGGTCGGACTCAGAAGTCAATCAAGAGGCTAAGCCAGAGGTCAAGCCAG  
 TACCCAGTAGTGGTAGTAGTAGTCCCAGCCTGAGTCTTCAGTTAGTTCTCCGATTCCGGTCTCCAGTTCGGT

C

6x His Tag

SUMOstar Fusion Protein

AAGTCAAGCCTGAGACTCACATCAATTTAAAGGTGTCCGATGGATCTTCAGAGATCTTCTTCAAGATCAAAA  
 A

TTCAGTTCGGACTCTGAGTGTAGTTAAATTTCCACAGGCTACCTAGAAAGTCTCTAGAAGAAGTTCTAGTTTT  
 T

GACCACTCCTTTAAGAAGGCTGATGGAAGCGTTCGCTAAAAGACAGGGTAAGGAAATGGACTCCTTAACGTT  
 C

CTGGTGAGGAAATTTCTCCGACTACCTTCGCAAGCGATTTTCTGTCCATTCTTTACCTGAGGAATTGCAA  
 G

TTGTACGACGGTATTGAAATTCAAGCTGATCAGACCCCTGAAGATTTGGACATGGAGGATAACGATATTATT  
 G

AACATGCTGCCATAACTTTAAGTTCGACTAGTCTGGGGACTTCTAAACCTGTACCTCCTATTGCTATAATAA  
 C

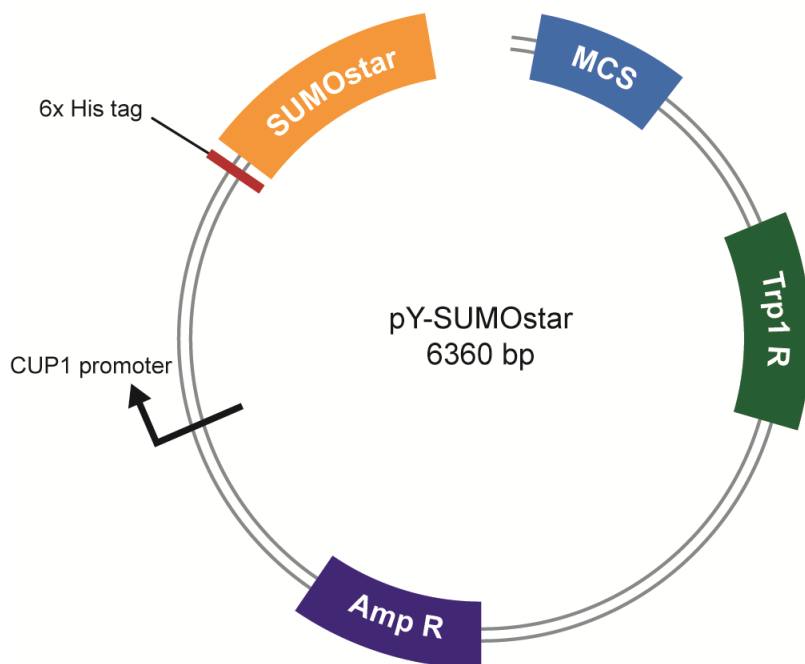
AGGCTCACCGCAACAGATTGG	SpeI	KpnI	BsaI	XbaI
CTAGAGGATCC	AGGTTGAGACCACTAGTGGTACCGGTCTCA			
TCCGAGTGGCGCTTGTCTAACCTCCA	ACTCTGGTGATCACCATGGCCAGAGTGATC			
TCCTAGG				

BsaI

MCS

BamHI	SaI	NotI	XhoI
GAATTCGAGCTCCGTCGACAAGCTTGC GGCCGCACTCGAG			
<u>CTTAAGCTCGAGGCAGCTGTTCGAACGCCGGCGTGAGCTC</u>			

Multi-Cloning Site



**Vector Sequence**

AGATCCCATT ACCGACATTT GGGCGCTATA CGTGCATATG TTCATGTATG  
TATCTGTATT TAAAACACTT TTGTATTATT TTTCTCATA TATGTGTATA

**101** GGGTTATACG GATGATTTAA TTATTACTTC ACCACCCTTT ATTTTCAGGCT  
GATATCTTAG CCTTGTTACT AGTTAGAAAA AGACATTTTT GCTGTCAGTC

**201** ACTGTCAAGA GATTCTTTTG CTGGCATTTC TTCTAGAAGC AAAAAGAGCG  
ATGCGTCTTT TCCGCTGAAC CGTTCAGCA AAAAAGACTA CCAACGCAAT

**301** ATGGATTGTC AGAATCATAT AAAAGAGAAG CAAATAACTC CTTGTCTTGT  
ATCAATTGCA TTATAATATC TTCTTGTTAG TGCAATATCA TATAGAAGTC

**401** ATCGAAATAG ATATTAAGAA AAACAACTG TACAATCCAT GGGTCATCAC  
CATCATCATC ACGGGTCCCT GCAGGACTCA GAAGTCAATC AAGAAGCTAA

**501** GCCAGAGGTC AAGCCAGAAG TCAAGCCTGA GACTCACATC AATTTAAAGG  
TGTCCGATGG ATCTTCAGAG ATCTTCTTCA AGATCAAAAA GACCACTCCT

**601** TTAAGAAGGC TGATGGAAGC GTTCGCTAAA AGACAGGGTA AGGAAATGGA  
CTCCTTAACG TTCTTGACG ACGGTATTGA AATTCAAGCT GATCAGACCC

**701** CTGAAGATTT GGACATGGAG GATAACGATA TTATTGAGGC TCACCGCGAA  
CAGATTGGAG GTTGAGACCA CTAGTGGTAC CGGTCTCACT AGAGGATCCG

**801** AATTCGAGCT CCGTCGACAA GCTTGCGGCC GCACTCGAGG AGCTCCCTGG  
CGGAATTGTA CCAAGATGGC CTTTGGTGGG TTGAAGAAGG AAAAAGACAG

**901** AAACGACTTA ATTACCTACT TGAAAAAAGC CTGTGAGTAA ACAGGCCCT  
TTTCTTTTGT CGATATCATG TAATTAGTTA TGTCACGCTT ACATTCACGC

**1001** CCTCCCCCA CATCCGCTCT AACCGAAAAG GAAGGAGTTA GACAACCTGA  
AGTCTAGGTC CCTATTTATT TTTTTATAGT TATGTTAGTA TTAAGAACGT

**1101** TATTTATATT TCAAATTTTT CTTTTTTTTC TGTACAGACG CGTGTACGCA  
TGTAACATTA TACTGAAAAC CTTGCTTGAG AAGGTTTTGG GACGCTCGAA

**1201** GGCTTTAATT TGCAAGCTTA TCGATGATAA GCTGTCAAAC ATGAGAATTC  
GGTCGAAAAA AGAAAAGGAG AGGGCCAAGA GGGAGGGCAT TGGTGACTAT

**1301** TGAGCACGTG AGTATACGTG ATTAAGCACA CAAAGGCAGC TTGGAGTATG  
TCTGTTATTA ATTTACAGG TAGTTCTGGT CCATTGGTGA AAGTTTGCGG

**1401** CTTGCAGAGC ACAGAGGCCG CAGAATGTGC TCTAGATTCC GATGCTGACT  
TGCTGGGTAT TATATGTGTG CCCAATAGAA AGAGAACAAT TGACCCGGTT

**1501** ATTGCAAGGA AAATTTCAAG TCTTGTAATA GCATATAAAA ATAGTTCAGG  
CACTCCGAAA TACTTGTTG GCGTGTTTCG TAATCAACCT AAGGAGGATG

**1601** TTTTGGCTCT GGTCAATGAT TACGGCATTG ATATCGTCCA ACTGCATGGA  
GATGAGTCGT GGCAAGAATA CCAAGAGTTC CTCGTTTGC CAGTTATTAA

**1701** AAGACTCGTA TTTCCAAAAG ACTGCAACAT ACTACTCAGT GCAGCTTCAC  
AGAAACCTCA TTCGTTTATT CCCTTGTTG ATTCAGAAGC AGGTGGGACA

1801 GGTGAACTTT TGGATTGGAA CTCGATTTCT GACTGGGTTG GAAGGCAAGA  
 GAGCCCCGAA AGCTTACATT TTATGTTAGC TGGTGGACTG ACGCCAGAAA  
 1901 ATGTTGGTGA TGCCTTAGA TTAATGGCG TTATTGGTGT TGATGTAAGC  
 GGAGGTGTGG AGACAAATGG TGTAAGAGAC TCTAACAAAA TAGCAAATTT  
 2001 CGTCAAAAAT GCTAAGAAAT AGGTTATTAC TGAGTAGTAT TTATTTAAGT  
 ATTGTTTGTG CACTTGCCTG CAGCTTCTCA ATGATATTCG AATACGCTTT  
 2101 GAGGAGATAC AGCCTAATAT CCGACAAACT GTTTTACAGA TTTACGATCG  
 TACTTGTTAC CCATCATTGA ATTTTGAACA TCCGAACCTG GGAGTTTTCC  
 2201 CTGAAACAGA TAGTATATTT GAACCTGTAT AATAATATAT AGTCTAGCGC  
 TTTACGGAAG ACAATGTATG TATTTGCGTT CCTGGAGAAA CTATTGCATC  
 2301 TATTGCATAG GTAATCTTGC ACGTCGCATC CCCGGTTCAT TTTCTGCGTT  
 TCCATCTTGC ACTTCAATAG CATATCTTTG TTAACGAAGC ATCTGTGCTT  
 2401 CATTTTGTAG AACAAAAATG CAACGCGAGA GCGCTAATTT TTCAAACAAA  
 GAATCTGAGC TGCATTTTTA CAGAACAGAA ATGCAACGCG AAAGCGCTAT  
 2501 TTTACCAACG AAGAATCTGT GCTTCATTTT TGTAACAAAC AAATGCAACG  
 CGAGAGCGCT AATTTTTCAA ACAAGAATC TGAGCTGCAT TTTTACAGAA  
 2601 CAGAAATGCA ACGCGAGAGC GCTATTTTAC CAACAAAGAA TCTATACTTC  
 TTTTTTGTTT TACAAAAATG CATCCCGAGA GCGCTATTTT TCTAACAAAG  
 2701 CATCTTAGAT TACTTTTTTT CTCCTTTGTG CGCTCTATAA TGCAGTCTCT  
 TGATAACTTT TTGCACTGTA GGTCCGTTAA GGTTAGAAGA AGGCTACTTT  
 2801 GGTGTCTATT TTCTCTTCCA TAAAAAAGC CTGACTCCAC TTCCCGCGTT  
 TACTGATTAC TAGCGAAGCT GCGGGTGCAT TTTTCAAGA TAAAGGCATC  
 2901 CCCGATTATA TTCTATACCG ATGTGGATTG CGCATACTTT GTGAACAGAA  
 AGTGATAGCG TTGATGATTC TTCATTGGTC AGAAAATTAT GAACGGTTTT  
 3001 TTCTATTTTG TCTCTATATA CTACGTATAG GAAATGTTA CATTTTCGTA  
 TTGTTTTCGA TCACTCTAT GAATAGTTCT TACTACAATT TTTTTGTCTA  
 3101 AAGAGTAATA CTAGAGATAA ACATAAAAAA TGTAGAGGTC GAGTTTAGAT  
 GCAAGTTCAA GGAGCGAAAG GTGGATGGGT AGGTTATATA GGGATATAGC  
 3201 ACAGAGATAT ATAGCAAAGA GATACTTTTG AGCAATGTTT GTGGAAGCGG  
 TATTCGCAAT ATTTTAGTAG CTCGTTACAG TCCGGTGCCT TTTTGTTTTT  
 3301 TTGAAAGTGC GTCTTCAGAG CGCTTTTGGT TTTCAAAGC GCTCTGAAGT  
 TCCTATACTT TCTAGAGAAT AGGAACTTCG GAATAGGAAC TTCAAAGCGT  
 3401 TTCCGAAAAC GAGCGCTTCC GAAAATGCAA CGCGAGCTGC GCACATACAG  
 CTCACTGTTT ACGTGCGACC TATATCTGCG TGTTGCCTGT ATATATATAT  
 3501 ACATGAGAAG AACGGCATAG TGCCTGTTTA TGCTTAAATG CGTACTTATA  
 TCGCTCTATT TATGTAGGAT GAAAGGTAGT CTAGTACCTC CTGTGATATT

3601 ATCCCATTC ATGCGGGGTA TCGTATGCTT CCTTCAGCAC TACCCTTTAG  
 CTGTTCTATA TGCTGCCACT CCTCAATTGG ATTAGTCTCA TCCTTCAATG  
 3701 CTATCATTTT CTTTGATATT GGATCATATG CATAGTACCG AGAAACTAGT  
 GCGAAGTAGT GATCAGGTAT TGCTGTTATC TGATGAGTAT ACGTTGTCCT  
 3801 GGCCACGGCA GAAGCACGCT TATCGCTCCA ATTTCCCACA ACATTAGTCA  
 ACTCCGTTAG GCCCTTCATT GAAAGAAATG AGGTCATCAA ATGTCTTCCA  
 3901 ATGTGAGATT TTGGGCCATT TTTTATAGCA AAGATTGAAT AAGGCGCATT  
 TTTCTTCAA GCTTTATTGT ACGATCTGAC TAAGTTATCT TTTAATAATT  
 4001 GGTATTCCTG TTTATTGCTT GAAGAATTGC CGGTCCTATT TACTCGTTTT  
 AGGACTGGTT CAGAATTCCT GAAGACGAAA GGGCCTCGTG ATACGCCTAT  
 4101 TTTTATAGGT TAATGTCATG ATAATAATGG TTTCTTAGAC GTCAGGTGGC  
 ACTTTTCGGG GAAATGTGCG CGGAACCCCT ATTTGTTTAT TTTTCTAAAT  
 4201 ACATTCAAAT ATGTATCCGC TCATGAGACA ATAACCCTGA TAAATGCTTC  
 AATAATATTG AAAAAGGAAG AGTATGAGTA TTCAACATTT CCGTGTCGCC  
 4301 CTTATTCCTT TTTTTGCGGC ATTTTGCCTT CCTGTTTTTG CTCACCCAGA  
 AACGCTGGTG AAAGTAAAAG ATGCTGAAGA TCAGTTGGGT GCACGAGTGG  
 4401 GTTACATCGA ACTGGATCTC AACAGCGGTA AGATCCTTGA GAGTTTTTCGC  
 CCCGAAGAAC GTTTTCCAAT GATGAGCACT TTTAAAGTTC TGCTATGTGG  
 4501 CGCGGTATTA TCCCGTGTTG ACGCCGGGCA AGAGCAACTC GGTCCGCCGA  
 TACACTATTC TCAGAATGAC TTGGTTGAGT ACTCACCAGT CACAGAAAAG  
 4601 CATCTTACGG ATGGCATGAC AGTAAGAGAA TTATGCAGTG CTGCCATAAC  
 CATGAGTGAT AACACTGCGG CCAACTTACT TCTGACAACG ATCGGAGGAC  
 4701 CGAAGGAGCT AACCGCTTTT TTGCACAACA TGGGGGATCA TGTAACTCGC  
 CTTGATCGTT GGGAAACCGGA GCTGAATGAA GCCATACCAA ACGACGAGCG  
 4801 TGACACCACG ATGCCTGCAG CAATGGCAAC AACGTTGCGC AAACTATTAA  
 CTGGCGAACT ACTTACTCTA GCTTCCCGGC AACAATTAAT AGACTGGATG  
 4901 GAGGCGGATA AAGTTGCAGG ACCACTTCTG CGCTCGGCC TTCCGGCTGG  
 CTGGTTTATT GCTGATAAAT CTGGAGCCGG TGAGCGTGGG TCCCGCGGTA  
 5001 TCATTGCAGC ACTGGGGCCA GATGGTAAGC CCTCCCGTAT CGTAGTTATC  
 TACACGACGG GGAGTCAGGC AACTATGGAT GAACGAAATA GACAGATCGC  
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 ACTCATATAT ACTTTAGATT GATTTAAAAC TTCATTTTTA ATTTAAAAGG  
 5201 ATCTAGGTGA AGATCCTTTT TGATAATCTC ATGACCAAAA TCCCTTAACG  
 TGAGTTTTTCG TTCCACTGAG CGTCAGACCC CGTAGAAAAG ATCAAAGGAT  
 5301 CTTCTTGAGA TCCTTTTTTT CTGCGCGTAA TCTGCTGCTT GCAAACAAAA  
 AAACCACCGC TACCAGCGGT GGTGTTGTTG CCGGATCAAG AGCTACCAAC

5401 TCTTTTTCCG AAGGTAAGT GCTTCAGCAG AGCGCAGATA CCAAATACTG  
TCCTTCTAGT GTAGCCGTAG TTAGGCCACC ACTTCAAGAA CTCTGTAGCA  
5501 CCGCCTACAT ACCTCGCTCT GCTAATCCTG TTACCAGTGG CTGCTGCCAG  
TGGCGATAAG TCGTGTCTTA CCGGGTTGGA CTCAAGACGA TAGTTACCGG  
5601 ATAAGGCGCA GCGGTCGGGC TGAACGGGGG GTTCGTGCAC ACAGCCCAGC  
TTGGAGCGAA CGACCTACAC CGAACTGAGA TACCTACAGC GTGAGCTATG  
5701 AGAAAGCGCC ACGCTTCCCG AAGGGAGAAA GGCAGCAGG TATCCGGTAA  
GCGGCAGGGT CGGAACAGGA GAGCGCACGA GGGAGCTTCC AGGGGGAAAC  
5801 GCCTGGTATC TTTATAGTCC TGTCGGGTTT CGCCACCTCT GACTTGAGCG  
TCGATTTTTG TGATGCTCGT CAGGGGGGCG GAGCCTATGG AAAAACGCCA  
5901 GCAACGCGGC CTTTTTACGG TTCCTGGCCT TTTGCTGGCC TTTTGCTCAC  
ATGTTCTTTC CTGCGTTATC CCCTGATTCT GTGGATAACC GTATTACCGC  
6001 CTTTGAGTGA GCTGATACCG CTCGCCGAG CCGAACGACC GAGCGCAGCG  
AGTCAGTGAG CGAGGAAGCG GAAGAGCGCC TGATGCGGTA TTTTCTCCTT  
6101 ACGCATCTGT GCGGTATTTT ACACCGCATA TGGTGCACCTC TCAGTACAAT  
CTGCTCTGAT GCCGCATAGT TAAGCCAGTA TACTACTCCGC TATCGCTACG  
6201 TGAAGGGTGC ATGGCTGCGC CCCGACACCC GCCAACACCC GCTGACGCGC  
CCTGACGGGC TTGTCTGCTC CCGGCATCCG CTTACAGACA AGCTGTGACC  
6301 GTCTCCGGGA GCTGCATGTG TCAGAGGTTT TCACCGTCAT CACCGAAACG  
CGCGAGGCAG