

1) Open j5 controls

j5 controls

Run j5 on Server Condense Assembly Files Downstream Automation j5 Files

j5 Parameters File: ☐ Use latest server version or ☒ Generate file [from parameters](#)

Master Plasmids List: ☒ Use latest server version or ☐ Generate empty file or

Master Oligos List: ☒ Use latest server version or ☐ Generate empty file or

Master Direct Syntheses List: ☒ Use latest server version or ☐ Generate empty file or

Assembly Method: **Combinatorial Golden-gate**

3) Run j5 to design DNA assembly

Plasmids

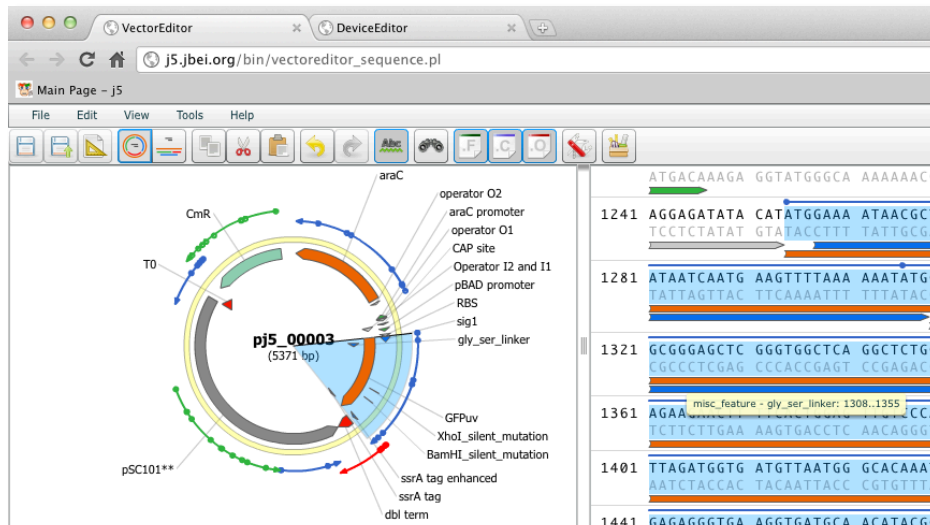
Name
pj5_00002.qb
pj5_00003.qb
pj5_00004.qb
pj5_00005.qb
pj5_00006.qb

2) Set j5 design parameters

j5 Parameters

Master Oligo Num of Digits (5)	5	Primer GC Clamp (2)	2
Master Plasmid Num of Digits (5)	5	Primer Min Size (18)	18
Gibson Overlap BPs (26)	26	Primer Max Size (36)	36
Gibson Overlap Min Tm (60)	60	Primer Min Tm (60)	60
Gibson Overlap Max Tm (70)	70	Primer Max Tm (70)	70
Maximum Num of Oligo BPs (110)	110	Primer Max Tm Diff (5)	5
Minimum Gibson Fragment Size BPs (250)	250	Primer Max Self Compl Any (8)	8
Golden Gate Overhang BPs (4)	4	Primer Max Self Compl End (3)	3
Golden Gate Recognition Sequence (GGTCTC)	GGTCTC	Primer Pair Max Compl Any (8)	8
Golden Gate Term Extra Seq (CACACCAGGTCTCA)	CACACCAGGTCTCA	Primer Pair Max Compl End (3)	3
Max Identifies Golden Gate Overhangs (2)	2	Primer Tm Santa Lucia (true)	true
Oligo Synthesis Cost Per BP (US) (0.1)	0.1	Primer Salt Corrections (true)	true
Oligo Purification Cost Per Piece (US) (40)	40	Primer DNA Conc (250)	250
Oligo Max Length No Page Purification (60)	60	MisPriming 3Prime Boundary (4)	4
Minimum PCR Product BPs (100)	100	MisPriming Min Tm (45)	45
Direct Synthesis Cost Per BP (US) (0.39)	0.39	MisPriming Salt Conc (0.05)	0.05
Direct Synthesis Min. Cost Per Piece (US) (159)	159	MisPriming Oligo Conc (2.5e-7)	2.5e-7
		Output Sequence Format (Genbank)	Genbank

4) Verify assembly products are as desired



5) Run j5 to design downstream automation

j5 controls

Run j5 on Server Condense Assembly Files Downstream Automation j5 Files

Assembly Files to Condense List: [my_assembly_file_list.csv](#)

Zipped Assembly Files: [my_assembly_files.zip](#)

(This sends to server)

j5 controls

Run j5 on Server Condense Assembly Files Downstream Automation j5 Files

DISTRIBUTE PCR REACTIONS

Downstream Automation Parameters File: ☐ Use latest server version or ☒ Generate file [from parameters](#)

Source Plate List: [plate_list.csv](#)

Zipped Plate Files: [zipped_plates.zip](#)

j5 Assembly File: [my_assembly_file_list_condense](#)

(This sends to server)