

<b>Gene Name</b>	CYP78C5 cs	<b>Order ID</b>	SG140999-1
<b>Lot#</b>	GB151124-35412	<b>Cloning Vector</b>	pBluescript II SK(+)
<b>Length (bp)</b>	1668	<b>Cloning Sites</b>	EcoR I/BamHI

### Quality Control

Test Items	Specifications	Results
<b>Sequencing Alignment</b>	Sequencing data consistent with target	[ X ] Pass
<b>Vector Sequence</b>	Flanking sequence of cloning sites are correct	[ X ] Pass
<b>Restriction Digest</b>	Insert size is correct and no contaminated bands	[ X ] Pass
<b>ORF Across Junction</b>	Correct and consistent with target	N/A
<b>PCR Amplification</b>	Correct and no contaminated bands	[ X ] Pass
<b>Endotoxin Level</b>	Verified, <0.1 EU/μg (Endo-Free Preps Only)	N/A
<b>Appearance</b>	Clear, no foreign particles	[ X ] Pass
<b>DNA Purity</b>	Purity (A 260/A280 = 1.8 - 2.0)	[ X ] Pass
<b>DNA Quantity</b>	Actual yield (by A 260 )	5ug

#### Comments

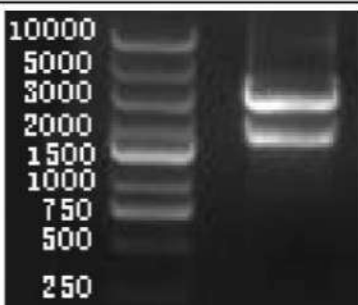
Delivery form: lyophilized plasmid (TE lyophilized) containing the gene insert. It is stable at room temperature for extended period of time during shipping. The lyophilized plasmid can be dissolved in sterile TE buffer or nuclease-free water (neutral pH) depending on the established laboratory practice. After reconstitution, store the stock solution at -20°C or -80°C for long term storage. The lyophilized plasmid dissolved in TE buffer is stable for at least 6 months at 4°C while the lyophilized DNA dissolved in water is NOT STABLE at 4°C.

- Before opening the tube containing the plasmid, please briefly centrifuge the tube. Lyophilized plasmid could attach to the wall of the tube. Opening without centrifugation could cause DNA loss.
- Stock Solution: Reconstitute lyophilized plasmid (4ug or 10ug) in 40ul or 100ul of TE buffer or nuclease-free water (final concentration - 100ng/ul). To accurately determine the quantity of DNA present, please measure OD value of original stock at OD<sub>260nm</sub> after reconstitution.
- Working Solution: make a 1:10 dilution of stock solution using TE buffer or nuclease-free water (final concentration - 10ng/ul)

#### Transformation and Replating:

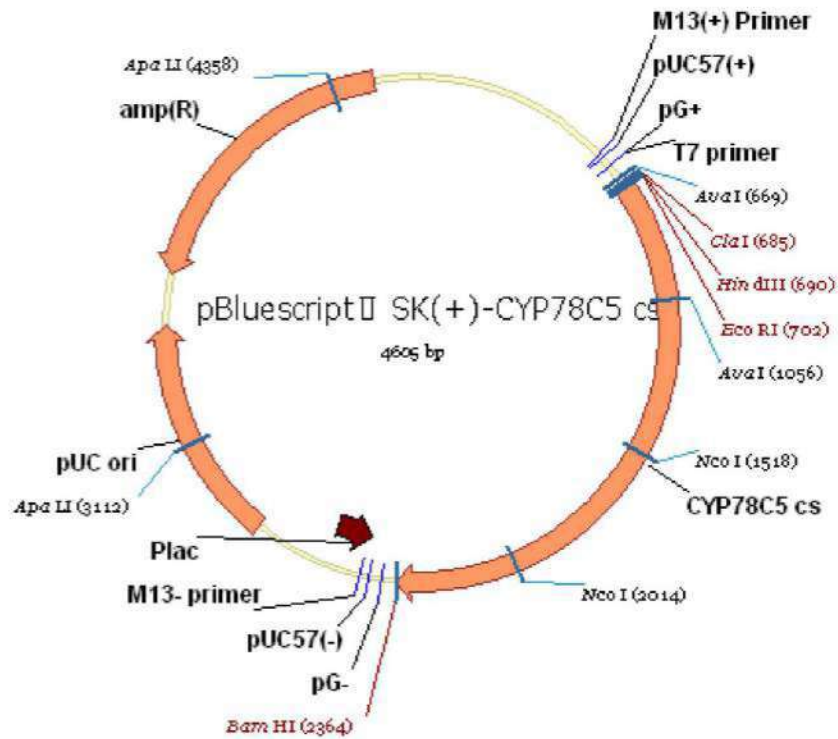
Transform 2ul of stock solution into appropriate *E. coli* competent cells according to standard laboratory protocol. Plate the mixture on LB agar (with desired antibiotic selection) and incubate at 37°C for overnight. Select a well separated, SINGLE colony and inoculate in LB medium with desired antibiotic selection for overnight culture. Purify Plasmid DNA from overnight cultures, verify sequences and continue with project of interest. \*It is important to select only a SINGLE colony for overnight culture.

### Restriction Digestion



Gene name: CYP78C5 cs  
Clone ID#: V9081-2  
RES: XbaI/HindIII

## Construct Map:



## Detailed Sequence of the Whole Construct:

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1   CTAAATTGTA AGCGTTAATA TTTTGTAA  ATTCGCGTTA AATTTTTGTT AAATCAGCTC
61  ATTTTTTAAC CAATAGGCCG AAATCGGCAA AATCCCTTAT AAATCAAAAG AATAGACCGA
121 GATAGGGTTG AGTGTGTGTC CAGTTTGAA  CAAGAGTCCA CTATTAAAGA ACGTGGACTC
181 CAACGTCAA  GGGCGAAAA  CCGTCTATCA GGGCGATGGC CCACTACGTG AACCATCACC
241 CTAATCAAGT TTTTGGGGT  CGAGGTGCCG TAAAGCACTA AATCGGAACC CTAAAGGGAG
301 CCCCCGATTT AGAGCTTGAC GGGGAAAGCC GCGAACGTG  GCGAGAAAGG AAGGGAAGAA
361 AGCGAAAGGA GCGGGCGCTA GGGCGCTGGC AAGTGTAGCG GTCACGCTGC GCGTAACCAC
421 CACACCCGCC GCGCTTAATG CGCCGCTACA GGGCGCGTCC CATTGCGCAT TCAGGCTGCG
481 CAACTGTTGG GAAGGGCGAT CGGTGCGGGC CTCTTCGCTA TTACGCCAGC TGGCGAAAGG
541 GGGATGTGCT GCAAGGCGAT TAAGTTGGGT AACGCCAGGG TTTTCCAGT  CACGACGTTG
601 TAAAACGACG GCCAGTGAGC GCGCGTAATA CGACTCACTA TAGGGCGAAT TGGGTACCGG
661 GCCCCCCCTC GAGGTCGACG GTATCGATAA GCTTGATATC GAATTCATGG ACATGGACTC
721 GTCGCCGTCG ACACAGGACT GTGGCGGCTG GCTGCTGTAC GTCTCCCTCG CTGCCAAATG
781 CGGCGGCGAC CTTTGCCGCG TCGTCGGCTT CGTCGCCGTT GCCGTCGTCG CTTTCGCCGT
841 CACGTCGCTC CTGCACTGGC TGTCGCCCGG TGGCCCGGCG TGGGGGAGGT ATTGGTGGAA
901 CAGGAGGGGT GGTCTGGGCA TTGCTGCCGC CATTCTGGG  CCCCCTGGGT TGCCCCTGCT
961 CGGCAGCATG TCGCTCATGG CGGGACTCGC GCACCGGAAG CTCGCCGCGG CGGCGGGGGG
1021 CTCGCCGGCG AGGCGGCGCC TCATGGCGCT GTCTCTCGGG GAGACACGGG TGGTGGTCAC
1081 CGCCGACCCC GGCGTCGCGC GGGAGCTCCT CGCCAGCGCG GCGTTCGCCG ACCGGCCGGT
1141 GAAGGAGTCC GCGTACGGGA TGCTGTTCCA CCGCGCCATC GGGTTCGCGC CCTACGGCAC
1201 GTACTGGCGC GCGCTCCGCC GCGTCGCGTC CACGCACCTC TTCTCGCCGA GGCAGGTGTC
1261 CGCCTCCGCC GCGCAGCGCG CGGTGATCGC GCGCCAGATG GTGGAGGCCA TGAGGTCCGC
1321 CGCCGCCGCC GCCGCCGGTG GCGGCGTGGC GGCGAGGCCG TTCCTGAAGC GCGCGTCGCT
1381 GCACAACGTG ATGTGGTCCG TGTTCCGGGAG GAAGTACGAG CTGGCGGCGC CGGAGAGCGA
1441 GGAGACGGCG GAGCTGAGGA GCATGGTGG  CGAAGGCTAC GACCTCCTCG GCCAGCTCAA
1501 CTGGTCCGAC CACCTCCCAT GGCTCGCACC CTTTGACCTC AAGAAGACGC GGTCAAGGTG
1561 CTCGTCCTTT GTCCCCGCG  TCAACCGCTT CGTCACCCGC ATCATCGACG AGCACCGTGC
1621 TCGCCTCAGC CTCGCCGTCG ACGCCGCCGT CGACTTCACC GACGTCCTTC TCTCCCTCCA
1681 CGGCGGCGAC AAGCTCTCCG ACGCCGACAT GGTCGCCGTC CTCTGGGAGA TGATCTTTCG
  
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1741	AGGGACGGAC	ACGGTGGCGG	TCCTGATCGA	GTGGGTGGCG	GCGAGGCTGG	TGCTGCACCA
1801	GGACGTGCAG	GCCAGGGTCC	ATGACGAGCT	GGACCGAGTG	GTCGGGTCGG	ACCGGGCAGT
1861	GACCGAGTCG	GACGCGTCCA	AGCTGGTCTA	CCTCCAAGCG	GTGATCAAAG	AGGTCCTGCG
1921	CCTCCACCCG	CCGGGCCCCAC	TGCTCTCGTG	GGCACGCCTC	GCCACGTCGG	ATGTACACGT
1981	CGGCGGGTTC	CTCATAACCCT	CTGGGACCAC	CGCCATGGTG	AACATGTGGG	CCATAACCCA
2041	TGACCCTGCC	GTTTGGCCCG	ACCCGAACGA	GTTCAAACCA	GAGAGGTTCG	TCGCAGGGCC
2101	CTCGTCGGAC	CAGGCCACGG	AGTTTCCGAT	AATGGGGTCG	GATCTCAGGC	TCGCGCCGTT
2161	CGGGTCAGGA	AGGCGAAGCT	GCCCCGGCAA	GTCGCTCGCC	ATCGCCACTG	TCGGATTCTG
2221	GGTTGCCACG	TTGCTACACG	AGTTCGATTG	GCTTCCCTTG	TCAGATAAGT	CGCGCGGCGT
2281	CGATCTGTCTG	GAGGTGCTGA	AGCTGTCTGTG	CGAGATGGCA	ACCCCGCTGG	AGGCAAGGCT
2341	AAGGCCGCGA	CGCAAGGTGT	GAGGATCCAC	TAGTTCTAGA	GCGGCCGCCA	CCGCGGTGGA
2401	GCTCCAGCTT	TTGTTCCCTT	TAGTGAGGGT	TAATTGCGCG	CTTGCGTAA	TCATGGTCAT
2461	AGCTGTTTTCC	TGTGTGAAAT	TGTTATCCGC	TCACAATTCC	ACACAACATA	CGAGCCGGAA
2521	GCATAAAGTG	TAAAGCCTGG	GGTGCCTAAT	GAGTGAGCTA	ACTCACATTA	ATTGCGTTGC
2581	GCTCACTGCC	CGCTTTCAG	TCGGGAAACC	TGTCGTGCCA	GCTGCATTA	TGAATCGGCC
2641	AACGCGCGGG	GAGAGGCGGT	TTGCGTATTG	GGCGCTCTTC	CGCTTCCTCG	CTCACTGACT
2701	CGCTGCGCTC	GGTCGTTCCG	CTGCGGCGAG	CGGTATCAGC	TCACTCAAAG	GCGGTAATAC
2761	GGTTATCCAC	AGAATCAGGG	GATAACGCAG	GAAAGAACAT	GTGAGCAAAA	GGCCAGCAAA
2821	AGGCCAGGAA	CCGTAAAAAG	GCCGCGTTGC	TGGCGTTTTT	CCATAGGCTC	CGCCCCCTG
2881	ACGAGCATCA	CAAAAATCGA	CGCTCAAGTC	AGAGGTGGCG	AAACCCGACA	GGACTATAAA
2941	GATACCAGGC	GTTTCCCCCT	GGAAGCTCCC	TCGTGCGCTC	TCCTGTTCCG	ACCCTGCCGC
3001	TTACCGGATA	CCTGTCCGCC	TTTCTCCCTT	CGGGAAGCGT	GGCGCTTCT	CATAGCTCAC
3061	GCTGTAGGTA	TCTCAGTTCG	GTGTAGGTCG	TTCGCTCCAA	GCTGGGCTGT	GTGCACGAAC
3121	CCCCGTTCA	GCCCGACCGC	TGCGCCTTAT	CCGGTAACTA	TCGTCTTGAG	TCCAACCCGG
3181	TAAGACACGA	CTTATCGCCA	CTGGCAGCAG	CCACTGGTAA	CAGGATTAGC	AGAGCGAGGT
3241	ATGTAGGCGG	TGCTACAGAG	TTCTTGAAGT	GGTGGCCTAA	CTACGGCTAC	ACTAGAAGGA
3301	CAGTATTTGG	TATCTGCGCT	CTGCTGAAGC	CAGTTACCTT	CGGAAAAAGA	GTTGGTAGCT
3361	CTTGATCCGG	CAAACAAACC	ACCGCTGGTA	GCGGTGGTTT	TTTTGTTTGC	AAGCAGCAGA
3421	TTACGCGCAG	AAAAAAAGGA	TCTCAAGAAG	ATCCTTTGAT	CTTTTCTACG	GGGTCTGACG
3481	CTCAGTGGA	CGAAAATCA	CGTTAAGGA	TTTTGGTTCAT	GAGATTATCA	AAAAGGATCT
3541	TCACCTAGAT	CTTTTTAAAT	TAAAAATGAA	GTTTTAAATC	AATCTAAAGT	ATATATGAGT
3601	AAACTTGGTC	TGACAGTTAC	CAATGCTTAA	TCAGTGAGGC	ACCTATCTCA	GCGATCTGTC
3661	TATTTGTTTC	ATCCATAGTT	GCCTGACTCC	CCGTGCTGTA	GATAACTACG	ATACGGGAGG
3721	GCTTACCATC	TGGCCCCAGT	GCTGCAATGA	TACCGCGAGA	CCCACGCTCA	CCGGCTCCAG
3781	ATTTATCAGC	AATAAACCAG	CCAGCCGGAA	GGGCCGAGCG	CAGAAGTGGT	CCTGCAACTT
3841	TATCCGCCTC	CATCCAGTCT	ATTAATTGTT	GCCGGGAAGC	TAGAGTAAGT	AGTTCGCCAG
3901	TTAATAGTTT	GCGCAACGTT	GTTGCCATTG	CTACAGGCAT	CGTGGTGTCA	CGCTCGTCGT
3961	TTGGTATGGC	TTCATTCAGC	TCCGGTTCCC	AACGATCAAG	GCGAGTTACA	TGATCCCCCA
4021	TGTTGTGCAA	AAAAGCGGTT	AGCTCCTTCG	GTCCTCCGAT	CGTTGTCAGA	AGTAAGTTGG
4081	CCGCAGTGTT	ATCACTCATG	GTTATGGCAG	CACTGCATAA	TTCTCTTACT	GTCATGCCAT
4141	CCGTAAGATG	CTTTTCTGTG	ACTGGTGAGT	ACTCAACCAA	GTCATTCTGA	GAATAGTGTA
4201	TGCGGCGACC	GAGTTGCTCT	TGCCCGGCGT	CAATACGGGA	TAATACCGCG	CCACATAGCA
4261	GAACTTTAAA	AGTGCTCATC	ATTGAAAAC	GTTCTTCGGG	GCGAAAACCTC	TCAAGGATCT
4321	TACCGCTGTT	GAGATCCAGT	TCGATGTAAC	CCACTCGTGC	ACCCAACCTGA	TCTTCAGCAT
4381	CTTTTACTTT	CACCAGCGTT	TCTGGGTGAG	CAAAAACAGG	AAGGCAAAAT	GCCGCAAAAA
4441	AGGGAATAAG	GGCGACACGG	AAATGTTGAA	TACTCATACT	CTTCCTTTTT	CAATATTATT
4501	GAAGCATTTA	TCAGGGTTAT	TGTCTCATGA	GCGGATACAT	ATTTGAATGT	ATTTAGAAAA
4561	ATAAACAAAT	AGGGGTTCGG	CGCACATTC	CCCGAAAAGT	GCCAC	