

Appendix 8.1

Sequencing results of pCEPO

Appendix 8.2

BLAST results for pCEPO plasmid

Accession	Description	Max score	Total score	Query coverage	E value	Max ident	Links
Transcripts							
NM_000799.2	Homo sapiens erythropoietin (EPO), mRNA	865	865	90%	0.0	99%	UEGM
Genomic sequences [show first]							
NW_001839065.2	Homo sapiens chromosome 7 genomic contig, alternate assembl	337	797	82%	9e-90	100%	
NT_007933.14	Homo sapiens chromosome 7 genomic contig, reference assemb	337	797	82%	9e-90	100%	

Appendix 8.2

BLAST results for pCEPO plasmid

```
>  ref|NM_000799.2| UEGM Homo sapiens erythropoietin (EPO), mRNA
Length=1340

GENE ID: 2056 EPO | erythropoietin [Homo sapiens] (Over 100 PubMed links)

Score = 865 bits (468), Expect = 0.0
Identities = 471/472 (99%), Gaps = 1/472 (0%)
Strand=Plus/Plus

Query 10  GAGT-CTGGAGAGGTACCTCTTGGAGGCCAAGGAGGCCGAGAATATCACGACGGGCTGTG 68
      |||||
Sbjct 291  GAGTCCTGGAGAGGTACCTCTTGGAGGCCAAGGAGGCCGAGAATATCACGACGGGCTGTG 350

Query 69  CTGAACACTGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAATTTCTATG 128
      |||||
Sbjct 351  CTGAACACTGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAATTTCTATG 410

Query 129  CCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAGGGCCTGGCCCTGC 188
      |||||
Sbjct 411  CCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAGGGCCTGGCCCTGC 470

Query 189  TGTTCGGAAGCTGTCCTGCGGGGCCAGGCCCTGTTGGTCAACTCTTCCCAGCCGTGGGAGC 248
      |||||
Sbjct 471  TGTTCGGAAGCTGTCCTGCGGGGCCAGGCCCTGTTGGTCAACTCTTCCCAGCCGTGGGAGC 530

Query 249  CCCTGCAGCTGCATGTGGATAAAGCCGTCACTGGCCTTCGCAGCCTCACCCTCTGCTTC 308
      |||||
Sbjct 531  CCCTGCAGCTGCATGTGGATAAAGCCGTCACTGGCCTTCGCAGCCTCACCCTCTGCTTC 590

Query 309  GGGCTCTGGGAGCCCAGAAGGAAGCCATCTCCCCTCCAGATGCGGCCTCAGCTGCTCCAC 368
      |||||
Sbjct 591  GGGCTCTGGGAGCCCAGAAGGAAGCCATCTCCCCTCCAGATGCGGCCTCAGCTGCTCCAC 650

Query 369  TCCGAACAATCACTGCTGACACTTTCCGCAAACCTTCCGAGTCTACTCCAATTTCTCC 428
      |||||
Sbjct 651  TCCGAACAATCACTGCTGACACTTTCCGCAAACCTTCCGAGTCTACTCCAATTTCTCC 710

Query 429  GGGGAAAGCTGAAGCTGTACACAGGGGAGGCCTGCAGGACAGGGGACAGATG 480
      |||||
Sbjct 711  GGGGAAAGCTGAAGCTGTACACAGGGGAGGCCTGCAGGACAGGGGACAGATG 762
```

Appendix 8.3

Multiple alignment results of pCEPO

Appendix 8.4

Sequencing results of pCEPOKDEL

Appendix 8.5

Multiple alignment results of pCEPOKDEL

Appendix 8.6

Sequencing results of a transformant bombarded with pCEPO

Appendix 8.7

Sequencing results of a transformant bombarded with pCEPOKDEL

Appendix 8.8

BLAST results of a transformant bombarded with pCEPO

Accession	Description	Max score	Total score	Query coverage	E value	Max ident	Links
Transcripts							
NM_000799.2	Homo sapiens erythropoietin (EPO), mRNA	207	207	39%	4e-51	99%	UEGM
Genomic sequences [show first]							
NW_001839065.2	Homo sapiens chromosome 7 genomic contig, alternate assembl	161	161	29%	3e-37	100%	
NT_007933.14	Homo sapiens chromosome 7 genomic contig, reference assemb	161	161	29%	3e-37	100%	

```
>  ref|NM\_000799.2| UEGM Homo sapiens erythropoietin (EPO), mRNA
Length=1340
```

[GENE ID: 2056 EPO](#) | erythropoietin [Homo sapiens] [\(Over 100 PubMed links\)](#)

```
Score = 207 bits (112), Expect = 4e-51
Identities = 114/115 (99%), Gaps = 0/115 (0%)
Strand=Plus/Plus
```

```
Query 59 GGGCTGTGCTGAACACTGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAA 118
      |||
Sbjct 343 GGGCTGTGCTGAACACTGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAA 402

Query 119 TTTCTATGCCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAG 173
      |||
Sbjct 403 TTTCTATGCCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAG 457
```

Appendix 8.9

BLAST results of a transformant bombarded with pCEPOKDEL

Accession	Description	Max score	Total score	Query coverage	E value	Max ident	Links
Transcripts							
NM_000799.2	Homo sapiens erythropoietin (EPO), mRNA	187	187	38%	5e-45	97%	UEGM
Genomic sequences [show first]							
NW_001839065.2	Homo sapiens chromosome 7 genomic contig, alternate assembl	134	196	38%	6e-29	100%	
NT_007933.14	Homo sapiens chromosome 7 genomic contig, reference assemb	134	196	38%	6e-29	100%	

> [ref|NM_000799.2|](#) [UEGM](#) Homo sapiens erythropoietin (EPO), mRNA
 Length=1340

[GENE ID: 2056 EPO](#) | erythropoietin [Homo sapiens] [\(Over 100 PubMed links\)](#)

Score = 187 bits (101), Expect = 5e-45
 Identities = 108/111 (97%), Gaps = 1/111 (0%)
 Strand=Plus/Plus

```

Query  65  GTGCTCAAC-CGGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAATTTCT 123
      ||||| ||| | |||||
Sbjct  348  GTGCTGAACACTGCAGCTTGAATGAGAATATCACTGTCCCAGACACCAAAGTTAATTTCT 407

Query  124  ATGCCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAGG 174
      |||||
Sbjct  408  ATGCCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAGG 458
  
```

Appendix 8.10

Multiple alignment results of a transformant bombarded with pCEPO

Appendix 8.11

Multiple alignment results of a transformant bombarded with pCEPOKDEL