

Fact sheet of reference DNA sequences of *Pulsatilla chinensis* (白頭翁)

| Summary   | Information  |
|---|--|
| Scientific name   | <i>Pulsatilla chinensis</i> (Bge.) Regel   |
| Type of reference material used for data generation         | <ul style="list-style-type: none"> <li>● Radix Pulsatillae (白頭翁)</li> <li>● Plant voucher specimen</li> </ul>  |
| Radix Pulsatillae (白頭翁)<br>(number of specimens / locality) | <ul style="list-style-type: none"> <li>● 6 / Tonghua City, Jilin Province, China</li> <li>● 6 / Fuping County, Hebei Province, China</li> <li>● 6 / Lushi County, Henan Province, China</li> </ul> |
| Plant voucher specimen<br>(number of specimens / locality)  | <ul style="list-style-type: none"> <li>● 1 / Tonghua City, Jilin Province, China</li> <li>● 1 / Fuping County, Hebei Province, China</li> </ul>  |
| Total number of specimen                                    | ● 20   |
| Specimen source   | <ul style="list-style-type: none"> <li>● GCMTI collection</li> <li>● Hong Kong Chinese Materia Medica Standards (HKCMMS)</li> </ul>  |

|                                   |   |
|-----------------------------------|---|
|                                   | Project   |
| <b>Method for data generation</b> | <ul style="list-style-type: none"> <li>● GCMTI RD-5:2020 (Minor modification for generation of ITS2 required, see Appendix)</li> </ul>  |
| <b>Length of DNA barcode</b>      | <ul style="list-style-type: none"> <li>● Nuclear internal transcribed spacer 2 (ITS2) is 218 bp</li> <li>● Chloroplast <i>psbA-trnH</i> intergenic spacer (<i>psbA-trnH</i>) is 284-346 bp</li> <li>● Chloroplast ribulose biphosphate carboxylase large chain (<i>rbcL</i>) is 553 bp</li> </ul> |

## Appendix

### Modification - PCR component condition for amplification of ITS2

| PCR components <sup>1</sup>             | ITS2F/ ITS3R                                 |
|---|--|
| DNA template <sup>2</sup>               | About 30 ng                                  |
| 10X High Fidelity PCR Buffer (Minus Mg) | 1 X  |
| MgSO <sub>4</sub>                       | 2.0 mM                                       |
| Trehalose                               | 5 %  |
| DMSO                                    | 0.5 %  |
| dNTPs                                   | 0.2 mM @ dNTP                                |
| Forward primer                          | 0.1 μM                                       |
| Reverse primer                          | 0.1 μM                                       |
| High Fidelity <i>Taq</i> DNA Polymerase | 1.0 U<br>per reaction                        |
| Nuclease-free water                     | An appropriate amount to<br>make up to 25 μL |

1. The PCR components listed the final concentration for PCR reaction in each primer pair.
2. In most circumstance, the recommended input DNA amount is sufficient to obtain good PCR result for downstream direct sequencing. Depending on sample nature, required input DNA amount may vary to improve PCR result from PCR inhibition or interference.

# Reference DNA Sequence

## Plant Specimen

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201022

>RD576-1A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCYCCGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCTCGTCGCCCCGCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 61

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201022

>RD576-1A\_psbA-trnH

```
TGTTGAAGTTCATCCACAAATGGCTAAGACTTAGGT
CTTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGA
AGTTGCAGGAGTAATACCCCAATTCCTGTTCTCTCAA
GAGGCCGGGCATTGCTCCTGCGTTTTGTTTAAATAGTG
TTTTATTTGCATTTTGCATAACTATTTTTTTTTTTGAAG
TAAAAAAAATAAATACTCGAATGGATTTATTGGTGAATT
CCTGATTATTACTCTCATTCTGTACATATATAAACCC
AATCCAATATAATATGATAATATGTTCTAAAAAATTT
TGAAACAGCTTCTTTGATAAA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201022

>RD576-1A\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAGAGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

| Description of reference material | Plant voucher specimen                   |
|-----------------------------------|--|
| Scientific name                   | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                 | RD576                                    |
| Sample mark                       | RD576-1A                                 |
| Locality                          | Tonghua City, Jilin Province, China      |
| Corresponding CMM specimen        | RD477                                    |
| Authenticated                     | Yes                                      |
| Remarks                           | ITS2: 61Y                                |

### Image



# Reference DNA Sequence

## Plant Specimen

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201022

>RD577-1B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCTCGTCGCCCGCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201022

>RD577-1B *psbA-trnH*

```
TGTTGAAGTTCATCCACAAATGGCTAAGACTTAGGT
CTTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGA
AGTTGCAGGAGTAATACCCCAATTCTGTTCTCTCAA
GAGGCCGGGCATTGCTCCTGCGTTTTGTTTAAATAGTG
TTTTATTGCATTTGCATAACTATTTTTTTTTTTTGAA
GTAAAAAAAAATAACTCGAATGGATTTATTGGTGAAT
TCCTGATTATTACTCTCATTCTGTACATATATAAAC
CAATCCAATATAATATGATAATATGTTCTCAAAAAT
TTGAAACAG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201022

>RD577-1B *rbcL*

```
AAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAAT
CAATTTATTTGTTATGTAGCCTACCCCTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAATATGGTAGAGCAGTTTATGAATGTCTC
```

## Reference Detail

| Description of reference material | Plant voucher specimen                   |
|-----------------------------------|--|
| Scientific name                   | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                 | RD577                                    |
| Sample mark                       | RD577-1B                                 |
| Locality                          | Fuping County, Hebei Province, China     |
| Corresponding CMM specimen        | RD478                                    |
| Authenticated                     | Yes                                      |
| Remarks                           | -  |

## Image



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201005

>RD476-1A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCC
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTG
AGCGGTGGTTGTASTCTCATCTCCAAAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 125

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201005

>RD476-1A\_psbA-trnH

```
TGTTGAAGTTCCATCCACAAATGGCTAAGACTTAGGT
CTTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGA
AGTTGCAGGAGTAATACCCCAATTCCTGTTCTCTCAA
GAGGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTG
TTTTATTTGCATTTGCATAACTATTTTTTTTTTTGAA
GTAAAAAAAATAAATCGAATGGATTTATTGGTGAAT
TCCTGATTATTACTCTCATTCTGTACATATATAAAC
CAATCCAATATAATATGATAATATGTTCTAAAAAAT
TTGAAACAGCTTCTTTGATAAAGCGGAGGGG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201005

>RD476-1A\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTATACTCCTGAATATACCCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTGGGTTCAAAGCGTTACGCGCTCT
ACGCTTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD476                                    |
| Sample mark                          | RD476-1A                                 |
| Locality                             | Lushi County, Henan Province, China      |
| Corresponding plant voucher specimen | -  |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 125S                               |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201027

>RD476-3B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCYCYGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGTACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCCTCGTCGCCCRCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 61, 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201027

>RD476-3B\_psbA-trnH

```
GAAGTTCCATCCACAAATGGCTAAGACTTAGGTCTTA
GTGTATGCTAGTCTTAGTGTATATGAGTCGTTGAAGTT
GCAGGAGTAATACCCCAATTCTGTCTCTCAAGAGG
CCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTGTITT
ATTTGCATTTGCATAACTATTTTTTTTTTTGAAGTA
AAAAAAAATAACTCGAATGGATTTATTGGTGAATTCC
TGATTATTACTCTCATTCTGTACATATATAAACCAA
TCCAATATAATATGATAATATGTTCTAAAAAATTTG
AACAGCTTCTTTGATAAAGCGGAGGGGCGGATG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201027

>RD476-3B\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD476                                    |
| Sample mark                          | RD476-3B                                 |
| Locality                             | Lushi County, Henan Province, China      |
| Corresponding plant voucher specimen | -  |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 61Y, 63Y, 169R                     |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201027

>RD476-4A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCYCYGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCTCGTCGCCCRCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 61, 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201027

>RD476-4A\_psbA-trnH

```
TGTTGAAGTTCATCCACAAATGGCTAAGACTTAGGT
CTTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGA
AGTTGCAGGAGTAATACCCCAATCTTGTCTCTCAA
GAGGCCGGGCATTGCTCCTGCGTTTTGTTTAATAGTG
TTTTATTTGCATTTGCATAACTATTTTTTTTTTTGAA
GTAAAAAATAAATAACTCGAATGGATTTATTGGTGAAT
TCCTGATTATACTCTCATTCTGTACATATATAAAC
CAATCCAATATAATATGATAATATGTTCTAAAAAATT
TTGAAACAGCTTCTTTGATAAAGCGGAGGGGCGGATG
TAGCCAAG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201027

>RD476-4A\_rbcL

```
AAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTCCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AAACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCCTATTG
GGATGACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD476                                    |
| Sample mark                          | RD476-4A                                 |
| Locality                             | Lushi County, Henan Province, China      |
| Corresponding plant voucher specimen | -  |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 61Y, 63Y, 169R                     |

### Image

Front view



Back view





# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111

>RD476-5A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCYCYGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGTACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCTCGTCGCCRCRTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 61, 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111

>RD476-5A\_psbA-trnH

```
TCCACAAATGGCTAAGACTTAGGTCTTAGTGTATGCT
AGTCTTAGTGTATATGAGTCGTTGAAGTTGCAGGAGT
AATACCCCAATCTTGTCTCTCAAGAGGCCGGGCAT
TGCTCCTGCGTTTTGTTTTAATAGTGTATTATTGCAAT
TTGCATAACTATTTTTTTTTTTGAAGTAAAAAAAAT
AACTCGAATGGATTATTGGTGAATTCCTGATTATTAT
ACTCTCATTCTGTACATATATAAACCAATCCAATATA
ATATGATAATATGTTCTAAAAATTTGAAACAGCTT
CTTTGATAAAGCGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111

>RD476-5A\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTATACTCCTGAATATAACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD476                                    |
| Sample mark                          | RD476-5A                                 |
| Locality                             | Lushi County, Henan Province, China      |
| Corresponding plant voucher specimen | -  |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 61Y, 63Y, 169R                     |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111

>RD476-6B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCYCCGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGTACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCCTCGTCGCCCGCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 61

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111

>RD476-6B\_psbA-trnH

```
ATCCACAAAATGGCTAAGACTTAGGTCTTAGTGTATGC
TAGTCTTAGTGTATATGAGTCGTTGAAGTTGCAGGAG
TAATACCCCAATTCTTGTCTCTCAAGAGGCCGGCA
TTGCTCCTGCGTTTTGTTTTAATAGTGTATTTATTTGCAT
TTTGCATAACTATTTTTTTTTTTGAAGTAAAAA
TAACTCGAATGGATTATTGGTGAATTCCTGATTATTA
TACTCTATTCTGTACATATATAAACCAATCCAATATA
ATATGATAATATGTTCTAAAAATTTGAAACAGCTT
CTTTGATAAAGCGAGGGGCGG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111

>RD476-6B\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTATACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGCAACTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD476                                    |
| Sample mark                          | RD476-6B                                 |
| Locality                             | Lushi County, Henan Province, China      |
| Corresponding plant voucher specimen | -  |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 61Y                                |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220211

>RD476-7A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCYGGGCACGGTC
GGCACAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCTCGTCGCCCRCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220211

>RD476-7A\_psbA-trnH

```
GGCTGTTGAAGTTCATCCACAAATGGCTAAGACTTA
GGTCTTAGTGTATGCTAGTCTTAGTGTATATGAGTCGT
TGAAGTTGCAGGAGTAATACCCCAATTCTTGTCTCTC
AAGAGGCCGGGCATTGCTCTGCGTTTTGTTTAATA
GTGTTTTATTTGCATTTGCATAACTATTTTTTTTTTT
GAAGTAAAAAAAAAATAACTCGAATGGATTTATTGGTG
AATTCCTGATTATTACTCTCATTCTGTACATATATA
AACCAATCCAATATAATATGATAATATGTTCTTAAAA
ATTTGAAACAGCTTCTTGATAAAGCGGAGGGGCGG
A
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220211

>RD476-7A\_rbcL

```
AAGTGTTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCTACCCTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCGGAAGATCTGCGAATTCCTATTGCTTATATTA
AAACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCTTATTG
GGATGACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD476                                    |
| Sample mark                          | RD476-7A                                 |
| Locality                             | Lushi County, Henan Province, China      |
| Corresponding plant voucher specimen | -  |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 63Y, 169R                          |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201005

>RD477-2A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCG
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTC
AGCGGTGGTTGACTCTCATCTCCAAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201005

>RD477-2A *psbA-trnH*

```
GCGGCTGTTGAAGTTCATCCACAAATGGCTAAGACT
TAGGTCTTAGTGTATGCTAGTCTTAGTGTATATGAGTC
GTTGAAGTTGCAGGAGTAATACCCCAATTCTTGTCT
CTCAAGAGGCCGGGCATTGCTCCTGCGTTTTGTTTTAA
TAGTGTTTTTATTGCATTTGCATAACTATTTTTTTTT
TTGAAGTAAAAAAAATAACTCGAATGGATTATTGG
TGAATTCCTGATTATTACTCTCATTCTGTACATATA
TAAACCAATCCAATAAATATGATAAATATGTTCCATA
AAATTTTGAACAGCTTCTTTGATAAAGCGGAGGGGG
GGATG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201005

>RD477-2A *rbcL*

```
AAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTATACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCCTGGCTGGAGAAGAAAAAT
CAATTTATTGTTATGTAGCCTACCCTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATCCTATTGCTTATATTA
AACTTTCCAAGCCCCGCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCTTATTG
GGATGTACTATTAAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD477                                    |
| Sample mark                          | RD477-2A                                 |
| Locality                             | Tonghua City, Jilin Province, China      |
| Corresponding plant voucher specimen | RD576                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | -  |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111

>RD477-3A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCYGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGTACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCTCGTCGCCRCRTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111

>RD477-3A\_psbA-trnH

```
TGAAGTTCCATCCACAAATGGCTAAGACTTAGGTCTT
AGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGAAG
TTGCAGGAGTAATACCCAATTCCTGTTCTCTCAAGA
GGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTGT
TTATTTGCATTTGCATAACTATTTTTTTTTTTGAAGT
AAAAAAAAAATAACTCGAATGGATTTATTGGTGAATTC
CTGATTATTACTCTCATTCTGTACATATATAAACCA
ATCCAATATAATATGATAATATGTTCTAAAAATTTT
GAAACAGCTTCTTTGATAAAGCGGAGGGGCGG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111

>RD477-3A\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD477                                    |
| Sample mark                          | RD477-3A                                 |
| Locality                             | Tonghua City, Jilin Province, China      |
| Corresponding plant voucher specimen | RD576                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 63Y, 169R                          |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111

```
>RD477-4B ITS2
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCC
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCCGGTC
AGCGGTGGTTGACTCTCATCTCAAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111

```
>RD477-4B psbA-trnH
TTAGGTCTTAGTGTATGCTAGTCTTAGTGTATATGAGT
CGTTGAAGTTGCAGGAGTAATACCCCAATTCTTGTC
TCTCAAGAGGCCGGGCATTGCTCCTGCGTTTTGTTTTA
ATAGTGTTTTATTTGCATTTTGCATAACTATTTTTTTTT
TTTGAAGTAAAAAAAAATAACTCGAATGGATTATTG
GTGAATTCCTGATTATTATACTCTCATTCTGTACATAT
ATAAACCAATCCAATATAATATGATAATATGTTCCCTA
AAAATTTGAAACAGCTTCT
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111

```
>RD477-4B rbcL
AAGTGTGGCTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACCCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCTTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD477                                    |
| Sample mark                          | RD477-4B                                 |
| Locality                             | Tonghua City, Jilin Province, China      |
| Corresponding plant voucher specimen | RD576                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | -  |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111

>RD477-5B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCYGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGTACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCTCGTCGCCCRCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111

>RD477-5B\_psbA-trnH

```
GTTCCATCCACAAATGGCTAAGACTTAGGTCTTAGTG
TATGCTAGTCTTAGTGTATATGAGTCGTTGAAGTTGC
AGGAGTAATACCCCAATTCTTGTCTCTCAAGAGGCC
GGGCATTGCTCCTGCGTTTTGTTTTAATAGTGTTTTAT
TTGCATTTTGCATAACTATTTTTTTTTTTTGAAGTAAA
AAAAAATAACTCGAATGGATTTATTGGTGAATTCCTG
ATTATTACTCTCATTCTGTACATATATAAACCAATC
CAATATAATATGATAATATGTTCTAAAAATTTTGA
ACAGCTTCTTTGATAAAGCGGAGGGGCGG
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111

>RD477-5B\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTATACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD477                                    |
| Sample mark                          | RD477-5B                                 |
| Locality                             | Tonghua City, Jilin Province, China      |
| Corresponding plant voucher specimen | RD576                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 63Y, 169R                          |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111

>RD477-6B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCG
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTC
AGCGGTGGTTGACTCTCATCTCCAAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111

>RD477-6B *psbA-trnH*

```
TGAAGTTCCATCCACAAATGGCTAAGACTTAGGTCTT
AGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGAAG
TTGCAGGAGTAATACCCCAATTCTGTTCTCAAGA
GGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTGT
TTATTGCAATTTGCATAACTATTTTTTTTTTTGAAGT
AAAAAAAAATAACTCGAATGGATTTATTGGTGAATTC
CTGATTATTACTCTCATTCTGTACATATATAAACCA
ATCCAATATAATATGATAATATGTTCTCTAAAAATTT
GAAACAGCTT
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111

>RD477-6B *rbcL*

```
AAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCCTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCTTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD477                                    |
| Sample mark                          | RD477-6B                                 |
| Locality                             | Tonghua City, Jilin Province, China      |
| Corresponding plant voucher specimen | RD576                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | -  |

### Image

Front view



Back view





# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220511-2

>RD477-8A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCG
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTC
AGCGGTGGTTGTASTCTCATCTCCAAAAGACAAAATG
ACGCGTCCGCCTCGTCGCCRCCTGGGCGAAGATGACC
CAAGGAGTCTCCCCAAYCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 125, 169, 202

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220511-2

>RD477-8A\_psbA-trnH

```
GTTGAAGTTCCATCCACAAATGGCTAAGACTTAGGTC
TTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGAA
GTTGCAGGAGTAATACCCCAATCTGTCTCTCAAG
AGGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTGT
TTTATTTGCATTTTGCATAACTATTTTTTTTTTGAAGT
AAAAAAAAAATAACTCGAATGGATTTATTGGTGAATTC
CTGATTATTACTCTCATTCTGTACATATATAAACCA
ATCCAATATAATATGATAATATGTTCTAAAAATTTT
GAAACAGCTTCTTTGATAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220511-2

>RD477-8A\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD477                                    |
| Sample mark                          | RD477-8A                                 |
| Locality                             | Tonghua City, Jilin Province, China      |
| Corresponding plant voucher specimen | RD576                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 125S, 169R, 202Y                   |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201005

>RD478-2B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCG
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTC
AGCGGTGGTTGACTCTCATCTCCAAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI201005

>RD478-2B *psbA-trnH*

```
GTTGAAGTTCATCCACAAATGGCTAAGACTTAGGTC
TTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGAA
GTTGCAGGAGTAATACCCCAATTCTGTTCTCTCAAG
AGGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTGT
TTATTGCAATTTGCATAACTATTTTTTTTTTGAAGT
AAAAAAAAATAACTCGAATGGATTTATTGGTGAATTC
CTGATTATTACTCTCATTCTGTACATATATAAACCA
ATCCAATATAATATGATAAATATGTTCTAAAAATTTT
GAAACAGCTTCTTTGATAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201005

>RD478-2B *rbcL*

```
AAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTGTTATGTAGCCTACCCCTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD478                                    |
| Sample mark                          | RD478-2B                                 |
| Locality                             | Fuping County, Hebei Province, China     |
| Corresponding plant voucher specimen | RD577                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | -  |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111-2

>RD478-3A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCYGGGCACGGTC
GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCCTCGTCGCCCRCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 63, 169

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111-2

>RD478-3A\_psbA-trnH

```
AATGGCTAAGACTTAGGTCTTAGTGTATGCTAGTCTT
AGTGTATATGAGTCGTTGAAGTTCAGGAGTAATACC
CCAATTCTTGTCTCTCAAGAGGCCGGCATTGCTCCT
GCGTTTTGTTTTAATAGTGTATTTATTTGCATTTGCA
AACTATTTTTTTTTTTGAAGTAAAAAAAATAACTC
GAATGGATTTATTGGTGAATTCCTGATTATTACTCT
CATTCTGTACATATATAAACCAATCCAATATAATATG
ATAATATGTTCTAAAAATTTGAAACAGCTTCTTTGA
TAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111-2

>RD478-3A\_rbcL

```
AAAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTATACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD478                                    |
| Sample mark                          | RD478-3A                                 |
| Locality                             | Fuping County, Hebei Province, China     |
| Corresponding plant voucher specimen | RD577                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 63Y, 169R                          |

### Image

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# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111-2

>RD478-4B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCG
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTC
AGCGGTGGTTGACTCTCATCTCCAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111-2

>RD478-4B *psbA-trnH*

```
TCCACAAATGGCTAAGACTTAGGTCTTAGTGTATGCT
AGTCTTAGTGTATATGAGTCGTTGAAGTTGCAGGAGT
AATACCCCAATTCTTGTTCTCTCAAGAGGCCGGGCAT
TGCTCCTGCGTTTTGTTTTAATAGTGTATTTATTGCA
TTGCATAACTATTTTTTTTTTTTGAAGTAAAAAAAA
TAACTCGAATGGATTTATTGGTGAATTCCTGATTATTA
TACTCTCATTCTGTACATATATAAACCAATCCAATATA
ATATGATAATATGTTCTTAAAAATTTGAAACAGCTT
CTTTGATAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111-2

>RD478-4B *rbcL*

```
AAGTGTGGCTTCAAAGCAGGTGTTAAAGATTACAAA
TTGAATTATTACTCTGAATATAACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTGTTATGTAGCCTACCCCTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AAACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD478                                    |
| Sample mark                          | RD478-4B                                 |
| Locality                             | Fuping County, Hebei Province, China     |
| Corresponding plant voucher specimen | RD577                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | -  |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111-2

>RD478-5B ITS2

```
CACACAGCGTYGCCCCACCAAAGCATTGGATGGG
GGCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTC
GGCACAAATGTTGGCCCTCRGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGTACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCCTCGTCGCCCGCTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

Remarks: observations at nucleotide position 11, 93

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111-2

>RD478-5B\_psbA-trnH

```
TGTTGAAGTTCCATCCACAAATGGCTAAGACTTAGGT
CTTAGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGA
AGTTGCAGGAGTAATACCCCAATTCCTGTTCTCTCAA
GAGGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTG
TTTTATTTGCATTTTGCATAACTATTTTTTTTTTTTGA
GTAAAAAAAATAAATCGAATGGATTTATTGGTGAAT
TCCTGATTATTATACTCTCATTCTGTACATATATAAAC
CAATCCAATATAATATGATAATATGTTCTAAAAAATT
TTGAAACAGCTTCTTTGATAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111-2

>RD478-5B\_rbcL

```
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TTGAATTATTATACTCCTGAATATACACCCAAAGATA
CTGATACCTTGGCGGCATTCCGAGTAACTCCTCAACC
CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTTGTTATGTAGCCTACCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCTATTG
TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGTCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCCTTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD478                                    |
| Sample mark                          | RD478-5B                                 |
| Locality                             | Fuping County, Hebei Province, China     |
| Corresponding plant voucher specimen | RD577                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 11Y, 93R                           |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220111-2

>RD478-6B ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
GCGGAAATTGGCCCCCGAGCCCCCTGGGCACGGTCG
GCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGTC
AGCGGTGGTTGACTCTCATCTCCAAGACAAAATG
ACGCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACC
CAAGGAGTCTCCCAACCGGAGACTTCCACCTG
```

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220111-2

>RD478-6B *psbA-trnH*

```
TGAAGTTCATCCACAAATGGCTAAGACTTAGGTCTT
AGTGTATGCTAGTCTTAGTGTATATGAGTCGTTGAAG
TTGCAGGAGTAATACCCCAATTCTGTTCTCAAGA
GGCCGGGCATTGCTCCTGCGTTTTGTTTTAATAGTGT
TTATTGCAATTTGCATAACTATTTTTTTTTTTGAAGT
AAAAAAAAATAACTCGAATGGATTTATTGGTGAATTC
CTGATTATTACTCTCATTCTGTACATATATAAACCA
ATCCAATATAATATGATAAATATGTTCTAAAAATTT
GAAACAGCTTCTTTGATAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220111-2

>RD478-6B *rbcL*

```
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CGGAGTTCACCTGAAGAAGCAGGGGCTGCTGTAGCT
GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGACG
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TGGGTAATGTATTTGGGTTCAAAGCGTTACGCGCTCT
ACGCTGGAAGATCTGCGAATTCCTATTGCTTATATTA
AACTTTCCAAGGCCCGCCTCACGGCATCCAAGTTGA
GAGAGATAAATTGAACAAGTATGGTCGTCCTTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD478                                    |
| Sample mark                          | RD478-6B                                 |
| Locality                             | Fuping County, Hebei Province, China     |
| Corresponding plant voucher specimen | RD577                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | -  |

### Image

Front view



Back view



# Reference DNA Sequence

## Chinese Materia Medica (CMM)

### DNA Information

#### Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220211

>RD478-9A ITS2

```
CACACAGCGTCGCCCCACCAAAGCATTGGATGGGG
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GGCACAAATGTTGGCCCTCGGCGGCGAGCGTCGCGGT
CAGCGGTGGTTGACTCTCATCTCCAAAGACAAAAT
GACGCGTCCGCCCTCGTCGCCCACTGGGCGAAGATGAC
CCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
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Remarks: observations at nucleotide position 63

#### Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI220211

>RD478-9A\_psbA-trnH

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TGCATTTTGCATAACTATTTTTTTTTTTGAAGTAAAA
AAAAATAACTCGAATGGATTTATTGGTGAATTCCTGA
TTATTATACTCTCATTCTGTACATATATAAACCAATCC
AATATAATATGATAATATGTTCTAAAAATTTTGAAA
CAGCTTCTTTGATAAAGCGGAGGGGCGGA
```

#### Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220211

>RD478-9A\_rbcL

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GCCGAATCTTCTACAGGTACATGGACAACCTGTGTGGA
CCGATGGACTACCAGCCTTGATCGTTACAAAGGACG
ATGCTACCATATCGAGCCCGTTGCTGGAGAAGAAAAT
CAATTTATTGTTATGTAGCCTACCCTTTAGACCTTTT
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GAGAGATAAATTGAACAAGTATGGTCGTCCCTATTG
GGATGTACTATTAACCAAAAATTGGGCTTATCTGCTA
AGAACTATGGTAGAGCAGTTTATGAATGTCTC
```

### Reference Detail

|                                      |  |
|--------------------------------------|--|
| Description of reference material    | Specimen of Radix Pulsatillae            |
| Scientific name                      | <i>Pulsatilla chinensis</i> (Bge.) Regel |
| Laboratory number                    | RD478                                    |
| Sample mark                          | RD478-9A                                 |
| Locality                             | Fuping County, Hebei Province, China     |
| Corresponding plant voucher specimen | RD577                                    |
| Authenticated                        | Yes                                      |
| Remarks                              | ITS2: 63Y                                |

### Image

Front view



Back view



## Reference DNA sequences in FASTA format

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2) sequence of plant voucher specimen of *Pulsatilla chinensis* and Chinese Materia Medica (CMM) Radix Pulsatillae

```

>RD576-1A ITS2
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GCGTCCGCCTCGTCGCCCGCTGGGCGAAGATGACCCAAGGAGTCTCCCAACCGGAGACTTCCACCTG
>RD577-1B ITS2
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>RD478-3A ITS2

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GCGTCCGCCTCGTCGCCCACTGGGCGAAGATGACCCAAGGAGTCTCCCAACCGGAGACTTCCACCTG

Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*) sequence of plant voucher specimen of *Pulsatilla chinensis* and Chinese Materia Medica (CMM) Radix Pulsatillae

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>RD478-3A\_psbA-trnH

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>RD478-4B\_psbA-trnH

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>RD478-5B\_psbA-trnH

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Partial chloroplast ribulose biphosphate carboxylase large chain (*rbcL*) sequence of plant voucher specimen of *Pulsatilla chinensis* and Chinese Materia Medica (CMM) Radix Pulsatillae

>RD576-1A\_rbcL

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