

Fact sheet of reference DNA sequences of *Arnebia euchroma* (新疆紫草)

Summary	Information
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Type of reference material used for data generation	● Plant voucher specimen ● Chinese Materia Medica: Radix Arnebiae (紫草)
Plant voucher specimen (number / locality)	● 2 / Urumqi City, Xinjiang Uygur Autonomous Region, China ● 2 / Kashgar Prefecture, Xinjiang Uygur Autonomous Region, China ● 2 / Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Chinese Materia Medica (number / locality)	● 6 / Urumqi City, Xinjiang Uygur Autonomous Region, China ● 1 / Kashgar Prefecture, Xinjiang Uygur Autonomous Region, China ● 7 / Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Total number of specimen	● 20
Specimen source	● GCMTI collection

Summary	Information
	● Hong Kong Chinese Materia Medica Standards (HKCMMS) Project
Method for data generation	● GCMTI RD-5:2020 (minor modification for generation of <i>psbA-trnH</i> and <i>rbcL</i> required, see Appendices 1 and 2)
Length of DNA barcode	● Nuclear internal transcribed spacer 2 (ITS2) is 223 bp ● Chloroplast <i>psbA-trnH</i> intergenic spacer (<i>psbA-trnH</i>) is 293-413 bp ● Chloroplast ribulose biphosphate carboxylase large chain (<i>rbcL</i>) is 553 bp

Appendix 1

Modification - PCR component and cycling condition for amplification of *psbA-trnH*

PCR component condition

PCR components ¹	Final concentration
DNA template ²	About 10 ng
10X High Fidelity PCR Buffer (Minus Mg)	1 X
MgSO ₄	4.0 mM
Trehalose	-
dNTPs	0.2 mM @ dNTP
Forward primer	0.2 µM
Reverse primer	0.2 µM
High Fidelity <i>Taq</i> DNA Polymerase	2.0 U per reaction
Nuclease-free water	An appropriate amount to make up to 25 µL

¹The PCR components listed the final concentration for PCR reaction in each primer pair.

²In 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.

PCR cycling condition

Temperature	Time	No. of cycles
94°C	5 min	1
94°C	1 min	40
59°C	1 min	
72°C	1.5 min	
72°C	7 min	1
4°C	∞	--

Appendix 2

Modification - PCR component and cycling condition for amplification of *rbcL*

PCR component condition

PCR components ¹	Final concentration
DNA template ²	About 20 ng
10X High Fidelity PCR Buffer (Minus Mg)	1 X
MgSO ₄	3.0 mM
Trehalose	5%
dNTPs	0.1 mM @ dNTP
Forward primer	0.1 µM
Reverse primer	0.1 µM
High Fidelity <i>Taq</i> DNA Polymerase	1.2 U per reaction
Nuclease-free water	An appropriate amount to make up to 25 µL

¹The PCR components listed the final concentration for PCR reaction in each primer pair.

²In 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.

PCR cycling condition

Temperature	Time	No. of cycles
94°C	4 min	1
94°C	30 sec	45
55°C	30 sec	
72°C	1 min	
72°C	10 min	1
4°C	∞	--

Reference DNA Sequence

Plant Specimen

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125-2

>RD587-1A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTCGTGTG
CCAAGCCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125-2

>RD587-1A *psbA-trnH*

AAGACTCTGTCTTAGTGTAGTGTATAGGAGTTATTGA
AAATAAAGGAGCAATAATCACCTTCTCTTTTATCAA
GAAGAGGGTATTGCTCCTTTATTTCTTTTATTTAGT
TGTTTTTATGTTACATGGACTTTTATTCCTTACAAAAG
CAAAAGAAGAAAAGGATTTCATGATTGAGGATCTTATT
TGTTCTGTTTTGTTTGTAATTTCTAAAACCTCCGTCCCTT
TTTTTTTTTTTATACATTTTATATAAATGATTATAAT
TATATATATTTATATTATATATAAAGGGG

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125-2

>RD587-1A *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGACAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGCTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACCTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Plant voucher specimen
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD587
Sample mark	RD587-1A
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding CMM specimen	RD481
Authenticated	Yes
Remarks	-

Image



Reference DNA Sequence

Plant Specimen

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125-2

>RD588-1B ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTCGTGTG
CCAAGCCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125-2

>RD588-1B *psbA-trnH*

GGATAAGACTCTGTCTTAGTGTAGTGTATAGGAGTTA
TTGAAAATAAAGGAGCAATAATCACCTTCTTCTTTTA
TCAAGAAGAGGGTATTGCTCCTTTATTTCTTTTATT
TAGTTGTATTTAGTTACATGGACTTTTATTCCTTACA
AAAGCAAAAAGAAGAAAGGATTGATTGAGGATC
TTATTTGTTCTGTTTGTGTTGTAATTTCTAAACTCCGT
CCCTTTTTTTTTTTTTATACATTTTATATAAATGTATT
ATAATTATATATTTATATTATATATAAGGGGGGGA

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125-2

>RD588-1B *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGACAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Plant voucher specimen
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD588
Sample mark	RD588-1B
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding CMM specimen	RD481
Authenticated	Yes
Remarks	-

Image



Reference DNA Sequence

Plant Specimen

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID, BI201125-2

>RD589-1B ITS2

CACATCGCGTACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTCGTGTG
CCAAGCCTCCGTGTCCTCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID, BI201125-2

>RD589-1B psbA-trnH

TACAAATGGATAAGACTCTGTCTTAGTGTAGTGTATA
GGAGTTATTGAAAATAAAGGAGCAATAATCACCTTCT
TCTTTTATCAAGAAGAGGGTATTGCTCCTTTATTTTCT
TTTTATTTAGTTGTATTTTAGTTACATGGACTTTTATTC
CTTACAAAAGCAAAAAGAAGAAAAGGATTCATGATTG
AGGATCTTATTTGTTCTGTTTTGTTTGTAATTTCTAAA
ACTCCGTCCTTTTTTTTTTTTTTATACATTTATATAA
ATGTATTATAATTATATATATTTATATTATATATAAGG

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID, BI201125-2

>RD589-1B rbcL

AAGTGTGGATTCAAAGCTGGTGTTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCGAGTAACCTCTCAACC
TGGAGTCTCCTCGTGAAGAAGCAGGGCCGAGTAGCT
CGCGAATCTTCTACTGGTACATGGACAACGGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATAAGTATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAATCATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGGCCCTGCGCGTCT
ACGTCCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCGCGCTCTTTGTT
GGGATGTACTATTAAACCTAAATTTGGGCTTATCCGCT
AAAAACTACGGTAGAGCAGGTTTATGAATGTCTT

Reference Detail

Description of reference material	Plant voucher specimen
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD589
Sample mark	RD589-1B
Locality	Kashgar Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding CMM specimen	RD482
Authenticated	Yes
Remarks	-

Image



Reference DNA Sequence

Plant Specimen

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125-2

>RD590-1A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTCGTGTG
CCAAGCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125-2

>RD590-1A_psbA-trnH

GAAGCTCCATCTACAAATGGATAAGACTCTGTCTTAG
TGAGTGTATAGGAGTTATTGAAAAATAAGGAGCAAT
AATCACCTTCTCTTTTATCAAGAAGAGGGTATTGCTC
CTTTATTTCTTTTATTAGTTGATTATTAGTTACATG
GACTTTTATTCCTTACAAAAGCAAAAAGAAGAAAAGG
ATTCATGATTGAGGATCTTATTGTCTGTTTGTGTTG
TAATTTCTAAAACTCCGTCCCTTTTTTTTTTTTATAC
ATTTTATATAAATGTATTATAATTATATATATTTAT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125-2

>RD590-1A_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGACAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCCTTGTG
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Plant voucher specimen
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD590
Sample mark	RD590-1A
Locality	Kashgar Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding CMM specimen	RD482
Authenticated	Yes
Remarks	-

Image



Reference DNA Sequence

Plant Specimen

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125-2

>RD591-1B ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTCGTGTG
CCAAGCCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125-2

>RD591-1B *psbA-trnH*

TCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGTA
TAGGAGTTATTGAAAATAAAGGAGCAATAATCACCTT
CTTCTTTTATCAAGAAGAGGGTATTGCTCCTTTATTTT
CTTTTATTTAGTTGTATTTTAGTTACATGGACTTTAT
TCCTTACAAAAGCAAAAGAAAGAAAGGATTTCATGAT
TGAGGATCTTATTTGTTCTGTTTTGTTTGAATTTCTA
AAACTCCGTCCCTTTTTTTTTTTTATACATTTTATAT
AAATGTATTATAATTATATATATTTATATTATATATAA
GGGG

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125-2

>RD591-1B *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTT
TGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCTTGTG
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Plant voucher specimen
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD591
Sample mark	RD591-1B
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding CMM specimen	RD483
Authenticated	Yes
Remarks	-

Image



Reference DNA Sequence

Plant Specimen

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125-2

>RD592-1B ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTCGTGTG
CCAAGCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACGTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125-2

>RD592-1B *psbA-trnH*

AGCTCCATCTACAAATGGATAAGACTCTGTCTTAGTG
TAGTGATAGGAGTTATTGAAAATAAAGGAGCAATA
ATCACCTTCTCTTTTATCAAGAAGAGGGTATTGCTCC
TTTATTTCTTTTATTTAGTTGTATTTAGTTACATGG
ACTTTTATTCCTTACAAAAGCAAAAAGAAAAGGAT
TCATGATTGAGGATCTTATTTGTTCTGTTTGTGTTGA
ATTTCTAAAACCTCCGTCCCTTTTTTTTTTTTATACAT
TTTATATAAATGTATTATAATTATATATATTTATATTA

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125-2

>RD592-1B *rbcL*

AAGTGTTGGATTCAAAGCTGGTGTTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGACAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Plant voucher specimen
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD592
Sample mark	RD592-1B
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding CMM specimen	RD483
Authenticated	Yes
Remarks	-

Image



Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125

>RD481-1A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGRCA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTYGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

Remarks: observation at nucleotide position 109, 143

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

Batch ID. BI201125

>RD481-1A_psbA-trnH

ACAACCTCCCTCTAGACTTAGCTGCTGTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAAATAAAGGAGCAATAATCACCT
TCTTGTTTTATCAAGAAGAGGGTATTGCTCCTTTATTT
TCTTTTATTTAGTTGTATTTTAGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAAGAAGAAAAGGATTTCATGA
TTGAGGATCTTATTTGTTCTGTTTTGTTGTAATTTCTA
AAACTCCGTCCTTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTTATTAT
ATATTAATTATTATAATTATATATTTTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125

>RD481-1A_rbcL

AAAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACTCCTCAACC
TGGAGTTCTCCTGAAGAAGCAGGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTGGGTTCAAAGCCCTGCGCGCTCT
ACGCTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD481
Sample mark	RD481-1A
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD587, RD588
Authenticated	Yes
Remarks	ITS2: 109R, 143Y

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. BI220411

>RD481-4A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI220411

>RD481-4A *psbA-trnH*

ACAACTTCCCTCTAGACTTAGCTGCTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTATTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGTATTTTAGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTAATTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220411

>RD481-4A *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACCTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD481
Sample mark	RD481-4A
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD587, RD588
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. BI220411

>RD481-5B ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI220411

>RD481-5B_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTTTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTAATTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220411

>RD481-5B_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACCTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD481
Sample mark	RD481-5B
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD587, RD588
Authenticated	Yes
Remarks	-

Image

Front view



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Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220411

>RD481-6A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTYGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

Remarks: observation at nucleotide position 143

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

Batch ID. BI220411

>RD481-6A_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTGTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTTTTATCAAGAAGAGGGTATTGCTCCTTTATTT
TCTTTTATTTAGTTGTATTTTAGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAAGAAGAAAAGGATTTCATGA
TTGAGGATCTTATTTGTTCTGTTTTGTTGTAATTTCTA
AAACTCCGTCCTTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTTATTAT
ATATTAATTATTATAATTATATATATTTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220411

>RD481-6A_rbcL

AAAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACTCCTCAACC
TGGAGTTCCCTCCTGAAGAAGCAGGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD481
Sample mark	RD481-6A
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD587, RD588
Authenticated	Yes
Remarks	ITS2: 143Y

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. BI221223

>RD481-8A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTGCAAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI221223

>RD481-8A_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTGTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTTTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTTGTAATTTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI221223

>RD481-8A_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACCTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD481
Sample mark	RD481-8A
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD587, RD588
Authenticated	Yes
Remarks	-

Image

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Back view



Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI230217

>RD481-10A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI230217

>RD481-10A_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTGCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTATTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAGAAGAAAAGGATTTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTTGTAATTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI230217

>RD481-10A_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACCTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD481
Sample mark	RD481-10A
Locality	Urumqi City, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD587, RD588
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. BI201125

>RD482-1A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125

>RD482-1A *psbA-trnH*

ACAACTTCCCTCTAGACTTAGCTGCTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTATTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTTGTAATTTCTA
AAACTCCGTCCCTTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125

>RD482-1A *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD482
Sample mark	RD482-1A
Locality	Kashgar Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD589, RD590
Authenticated	Yes
Remarks	-

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Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125

>RD483-1A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125

>RD483-1A *psbA-trnH*

ACAACTTCCCTCTAGACTTAGCTGCTGTCGAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTCTTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTTGTAATTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125

>RD483-1A *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-1A
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
Authenticated	Yes
Remarks	-

Image

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Back view



Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI201125

>RD483-2A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGTCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI201125

>RD483-2A_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTGCAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTATTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTTGTAATTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI201125

>RD483-2A_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-2A
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
Authenticated	Yes
Remarks	-

Image

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Back view



Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220411

>RD483-3A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI220411

>RD483-3A_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTGCAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTTTTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGATTTTATGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAAGAAGAAAAGGATTTCATGA
TTGAGGATCTTATTGTTCTGTTTGTGTTGTAATTCTA
AAACTCCGTCCCTTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220411

>RD483-3A_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCCTCCTGCTTATGTT
AAAACTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-3A
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
Authenticated	Yes
Remarks	-

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Back view



Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI220411

>RD483-5A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI220411

>RD483-5A *psbA-trnH*

ACAACTTCCCTCTAGACTTAGCTGCTGCAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTATTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGTATTTTAGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTTGTTGTAATTTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI220411

>RD483-5A *rbcL*

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCCTCCTGCTTATGTT
AAAACCTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGCTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACCTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-5A
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
Authenticated	Yes
Remarks	-

Image

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Back view



Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI230217

>RD483-7C ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
AGTGGTGGTTGGATAACAACCTCGCGTCATGTTGTGTG
CCAAACCTCCGTGTCTCCGTAGACCCTAAGGCGCGTG
CTTTCCAACCTCGTTCGTTGGGAAACCGTGCTACGACC
G

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

Batch ID. BI230217

>RD483-7C_psbA-trnH

ACAACTTCCCTCTAGACTTAGCTGCTGCAAGCTCC
ATCTACAAATGGATAAGACTCTGTCTTAGTGTAGTGT
ATAGGAGTTATTGAAAATAAAGGAGCAATAATCACCT
TCTTGTTTTATCAAGAAGAGGGTATTGCTCCTTATTT
TCTTTTATTTAGTTGTATTTTAGTTACATGGACTTTTA
TTCCTTACAAAAGCAAAAGAAGAAAAGGATTCATGA
TTGAGGATCTTATTGTTCTGTTTTGTTGTAATTCTA
AAACTCCGTCCCTTTTTTTATATATTTTTTATACATT
TTATATAAATGTATTATAATTATATATATATTATTAT
ATATTAATTATTATAATTATATATATTATATTATATA
TAAGGGGCGGATGTAGCCAAGTGGATCAAGGCAGT

Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI230217

>RD483-7C_rbcL

AAGTGTGGATTCAAAGCTGGTGTAAAGAGTACAAA
TTGACTTATTATACTCCTGAATACCAAACCAAGGATA
CTGATATCTTGGCAGCATTCCGAGTAACCTCCTCAACC
TGGAGTTCCTCCTGAAGAAGCAGGGGCCGAGTAGCT
GCCGAATCTTCTACTGGTACATGGACAACGGTGTGGA
CCGATGGACTTACCAGCCTTGATCGTTACAAAGGGCG
ATGCTACCACATCGATCCCGTTCCGGGAGACGAAAAT
CAATATATATGTTATGTAGCTTATCCTTTAGACCTTTT
TGAAGAAGGTTCTGTACTAACATGTTACTTCCATCG
TAGGTAATGTATTTGGGTTCAAAGCCCTGCGCGCTCT
ACGTCTGGAAGATCTGCGAATCCCTCCTGCTTATGTT
AAAACTTTCCAAGGCCACCTCATGGGATCCAAGTTG
AAAGAGATAAATTGAACAAGTACGGCCGTCCTTTGTT
GGGATGTACTATTAAACCTAAATTGGGCTTATCCGCT
AAAACTACGGTAGAGCAGTTTATGAATGTCTT

Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-7C
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
Authenticated	Yes
Remarks	-

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Reference DNA Sequence

Chinese Materia Medica (CMM)

DNA Information

Internal transcribed spacer 2 of nuclear ribosomal RNA (ITS2)

Batch ID. BI221223

>RD483-8A ITS2

CACATCGCGTCACCCCATCCAAAATAATGTTGGATGT
GGTGGATTGTGACCTCCTGTGCTTGAGATGCAGTTG
GTCGAAATTCGAGTCCGGAGCTTAGGACTTCACGACA
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Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*)

Batch ID. BI221223

>RD483-8A_psbA-trnH

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Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI221223

>RD483-8A_rbcL

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Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-8A
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
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. BI230217

>RD483-9A ITS2

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

Batch ID. BI230217

>RD483-9A *psbA-trnH*

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Chloroplast ribulose biphosphate carboxylase large chain (*rbcL*)

Batch ID. BI230217

>RD483-9A *rbcL*

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Reference Detail

Description of reference material	Specimen of Radix Arnebiae
Scientific name	<i>Arnebia euchroma</i> (Royle) Johnst.
Laboratory number	RD483
Sample mark	RD483-9A
Locality	Aksu Prefecture, Xinjiang Uygur Autonomous Region, China
Corresponding plant voucher specimen	RD591, RD592
Authenticated	Yes
Remarks	-

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 *Arnebia euchroma* and Chinese Materia Medica (CMM) Radix *Arnebiae*

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Chloroplast *psbA-trnH* intergenic spacer (*psbA-trnH*) sequence of plant voucher specimen of *Arnebia euchroma* and Chinese Materia Medica (CMM) Radix *Arnebiae*

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Partial chloroplast ribulose biphosphate carboxylase large chain (*rbcL*) sequence of plant voucher specimen of *Arnebia euchroma* and Chinese Materia Medica (CMM) Radix Arnebiae

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