

SAMPLE

Feverfew Extract
Parthenolide 0.8% HPLC
Lot# CXBJ-A-03193



Items Included:

Botanical Identification Report • Macroscopic Identification Report • Chemical Identification Report

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Feverfew Extract

PRODUCT INFORMATION

Common Name Feverfew
Latin Name *Tanacetum parthenium*
Harvest Location France
Part Used Aerial

Description Feverfew Extract 0.8% Parthenolide HPLC
Lot # CXBJ-A-03193
Report Date 04/24/2017

Botanical Identification

ID Reference Flora of China

REFERENCE OR BOTANICAL VOUCHER IMAGE:



WHOLE PLANT SAMPLE IMAGE:



Result: The harvest material has been confirmed to reference image.

Print Name of Analyst: Juan Gao

Signature of Analyst: *Gao Juan*

Feverfew Extract

PRODUCT INFORMATION

Common Name Feverfew
Latin Name *Tanacetum parthenium*
Harvest Location France
Part Used Aerial

Description Feverfew Extract 0.8% Parthenolide HPLC
Lot # CXBJ-A-03193
Report Date 04/24/2017

Macroscopic Identification

ID Reference European Pharmacopoeia
Plant Part Aerial

MACROSCOPIC DESCRIPTION OF KEY FEATURES:

- General appearance:** Dry mixture of leaves, stems and flowers, with majority of parts intact.
- Leaves:** Leaves petiolate, bipinnate-partite, lobes ovate, margin crenate or serrate when intact; midrib prominent on the lower surface, both surfaces with grayish-white pubescence.
- Color:** Leaves green or yellowish-green (both surfaces), stems green or yellowish green.
- Odor and taste:** Delicately fragrant; slightly bitter.

TYPICAL CRUDE RAW MATERIAL USED FOR PRODUCTION:



Result: The starting material has been confirmed to the reference image/description of *Tanacetum parthenium* aerial part.

Print Name of Analyst: Juan Gao

Signature of Analyst: *Gao Juan*

Feverfew Extract

PRODUCT INFORMATION

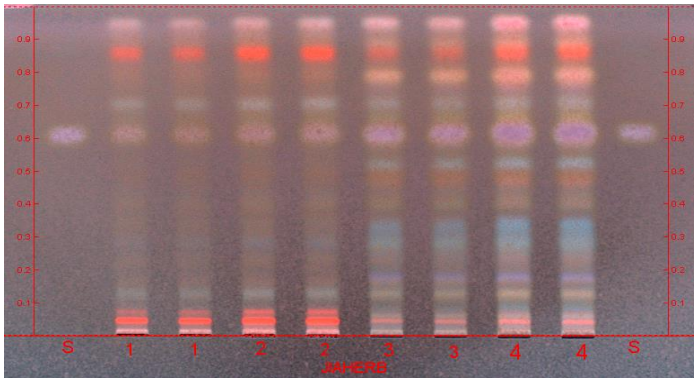
Common Name Feverfew
Latin Name *Tanacetum parthenium*
Harvest Location France
Part Used Aerial

Description Feverfew Extract 0.8% Parthenolide HPLC
Lot # CXBJ-A-03193
Report Date 04/24/2017

Chemical Identification

HPTLC CHROMATOGRAM:

Fig 1:UV 365nm



Lane	Amount applied	ID
S	5µL	Parthenolide standard (140041706; NIFDC)
1	5µL	Raw material reference standard (<i>Tanacetum parthenium</i> L) (Herb) (ChromaDex, 00030677-160)
2	5µL	Raw material (<i>Tanacetum parthenium</i> L) (Aerial) Lot# Y-458160416
3	5µL	Raw material (<i>Tanacetum parthenium</i> L) (Aerial) Lot# Y-458160416 (prepared as manufacture process)
4	5µL	Feverfew Extract Lot# CXBJ-A-03193

Result: This test sample is consistent with the chromatographic profile of the raw material of *Tanacetum parthenium* (aerial part) Jiaherb used above. This test sample is characteristic of an extract derived from *Tanacetum parthenium* aerial part.

Conclusion: Upon completion of our Botanical, Macroscopic, & Chemical identification process, we can confirm that this product is an extract from *Tanacetum parthenium* aerial part.

Print Name of Analyst: Juan Gao

Signature of Analyst:

PRODUCT INFORMATION

Common Name	Feverfew	Description	Feverfew Extract 0.8% Parthenolide HPLC
Latin Name	<i>Tanacetum parthenium</i>	Lot #	CXBJ-A-03193
Harvest Location	France	Report Date	04/24/2017
Part Used	Aerial		

Chemical Identification (cont.)

Methodology	HPTLC
Method Reference	JH/ZY-D-270
Ref. Standard	Parthenolide, Tanacetum parthenium Leaves
Ref. Standard Source	NIFDC, ChromaDex

ANALYSIS METHOD:

1. Apparatus

Linomate -5 (CAMAG, Switzerland)
Digital Reprostar-3 (CAMAG, Switzerland)
Automatic Development Chromatogram ADC₂ (CAMAG, Switzerland)

2. Standard Solution Preparation

Accurately weigh about 1.0 g of raw material standard in a 10-mL volumetric flask. Add about 10ml of methanol sonicated for 30min. Cool to room temperature and pass through a membrane filter having 0.45µm porosity.

3. Raw Material Preparation:

Dissolve 1g raw material with 10mL of 70% ethanol sonicate for 60min, obtain the ethanol extract by filtration, and use as raw material reference sample standard preparation. Cool to room temperature and pass through a membrane filter having 0.45µm porosity..

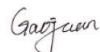
4. Extract Sample preparation

Accurately weigh 0.5 g of sample to be examined in a 10-mL volumetric flask. Add about 10ml of methanol and sonicated for 30min. Cool to room temperature and pass through a membrane filter having 0.45µm porosity.

5. HPTLC Running conditions

Stationary phase: Silica gel 60
Mobile Phase: toluene: acetone (17:3, V/V)
Development: development for 8 cm, with saturation 15 min.
Detection: Treat with 1% vanillin sulfuric acid reagent, dry in cool air, heat at 105°C for 3min. Examine at UV 365nm.

Print Name of Analyst: Juan Gao

Signature of Analyst: 

ComplyID Identification Report

Customer:	Jiaherb Inc.	Report #	CDXA-CID-6672-00
Address:	1 Chapin Rd Unit 1 Pine Brook, NJ 07058	Assay #	CDA-00101242-ATR
PO #	20160707-05	ORD #	ORD86260
		Date:	7/19/2016

Results Summary

Sample name; Feverfew (Tanacetum parthenium) raw material aerial part;
Lot number: YXBJ20151207
Manufacturer: JIAHERB®
Target Reference: **Feverfew Herb**
Reference file; NA
report:

Result:  The material **passed** characterization as a reference material and has been positively identified.

Comments: Passes for botanical identity and presence of parthenolide

Authored: Jenna Gordon

Date: 7/19/2016

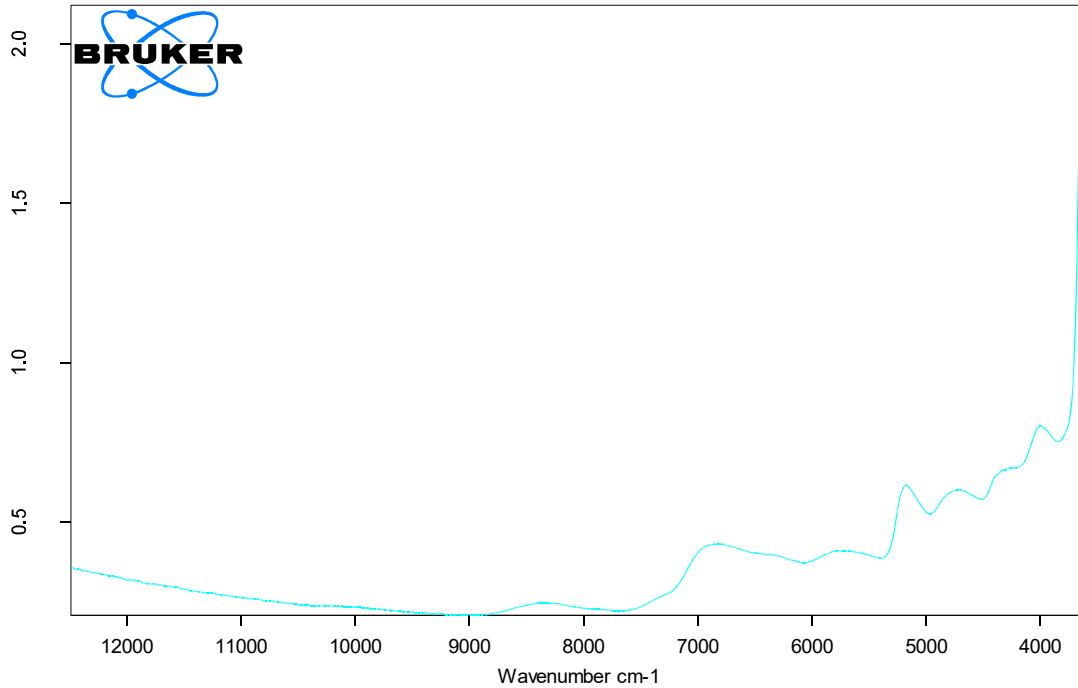
QA Verified/

Approved: Christopher Ferlin Digitally signed by Christopher Ferlin
DN: cn=Christopher Ferlin, ou=ChromaDex Inc., ou=Quality Assurance, email=ChrisFerlin@chromadex.com, c=US
Date: 2016.07.19 16:46:03 -0500

Date: 7/19/2016

Signed original on file at CDXA

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ComplyID Identification Report

Customer:	Jiaherb Inc.	Report #	CDXA-CID-6673-00
Address:	1 Chapin Rd Unit 1 Pine Brook, NJ 07058	Assay #	CDA-00101242-ATR
PO #	20160707-05	ORD #	ORD86260
		Date:	7/19/2016

Results Summary

Sample name; Feverfew Extract 0.8% HPLC; CXBJ-A-03147
Lot number:
Manufacturer: JIAHERB®
Target Reference: **Feverfew Herb**
Reference file; NA
report:

Result:  The material **passed** characterization as a reference material and has been positively identified.

Comments: Passes for botanical identity and presence of parthenolide

Authored: Jenna Gordon

Date: 7/19/2016

QA Verified/

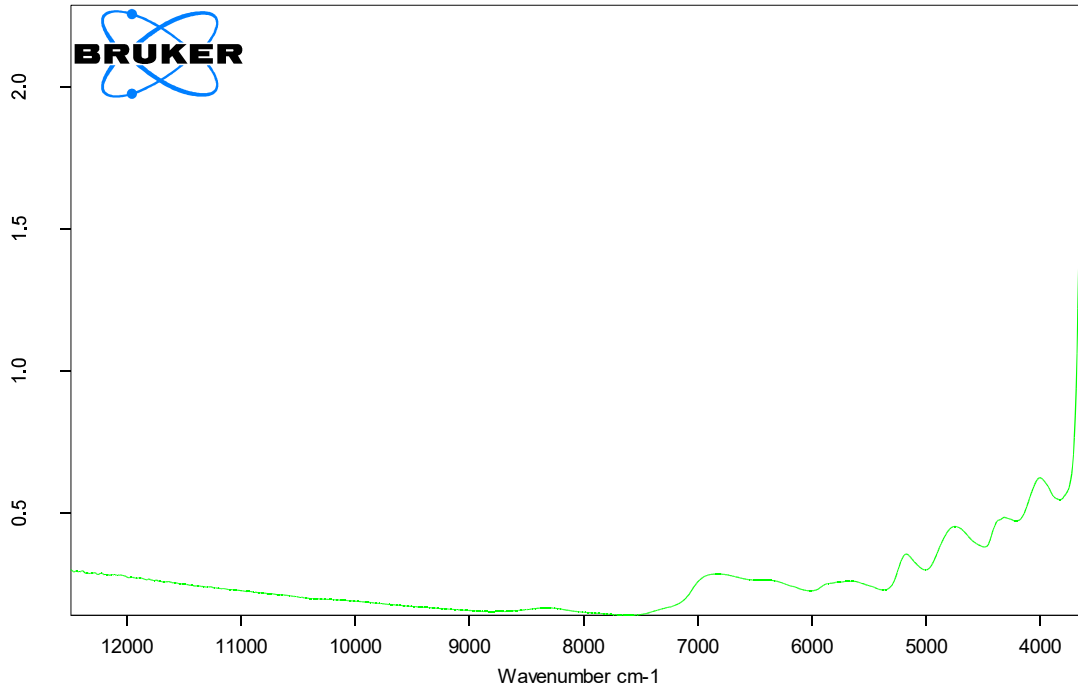
Approved: Christopher Ferlin

Digitally signed by Christopher Ferlin
DN: cn=Christopher Ferlin, o=ChromaDex Inc.,
ou=Quality Assurance, email=ChrisF@chromadex.
com, c=US
Date: 2016.07.19 16:42:20 -0600

Date: 7/19/2016

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SAMPLE

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