Technical documentation

Product name:	**qRE Passiflora incarnata L., aerial parts**
Substance:	Passiflora incarnata L., aerial parts dry extract
Plant source common names:	en: Purple passionflower ; fr: Passiflore
Reference:	E0014
Packaging:	100 mg in a 1.5 ml borosilicate amber vial
Storage conditions:	Keep container closed. Protect from light and moisture. Keep at -18 °C
Retest:	12 months

Botanical identification of plant source

Plants in our botanical garden are identified and a herbal voucher is prepared by an expert botanist.
Each batch collected for extraction is verified and identified.
Reference: Flora of North America
http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=220009998

Method of production of dry extract

Whole plant or plant parts are collected, freeze-dried and coarsely ground. Extraction is performed by maceration in 50 % (v/v) aqueous ethanol for 48 hours at room temperature. Ethanol is then evaporated under reduced pressure at less than 40 °C and the aqueous residue is freeze-dried. 5 % of fumed silica is added.

Organoleptic characteristics of dry extract

Colour: Brown green
Odour: Non characteristic
Form: Fine powder

Recommended methods for use

Weight a precise weight of qRE and solubilise in the recommended solvent at the concentration indicated in the HPLC or HPTLC method described in this document.
Sonicate for 90 seconds (70 W). Filter on a 0.45 µm PVDF membrane and put the resulting solution into HPLC dispenser or apply on the HPTLC plate.
Dose and analyse your extract with qRExtract using the HPLC / HPTLC methods described in this document or using your own methods.

HPTLC

Detection of isovitexin, vitexin and schaftoside

Layer: 10 × 10 cm HPTLC Nano-Sil-20 UV 254 (Carl Roth ref. N084.1)

Thin layer conditionnement: 1 h at room temperature and 33 % relative humidity

Elution solvent:

Elution solvent compound	Volume (ml)
ethyl acetate	50
butanone	30
formic acid	10
H_2O	10

Developing distance: 70 mm from the lower edge

Initial spot volume and concentration:

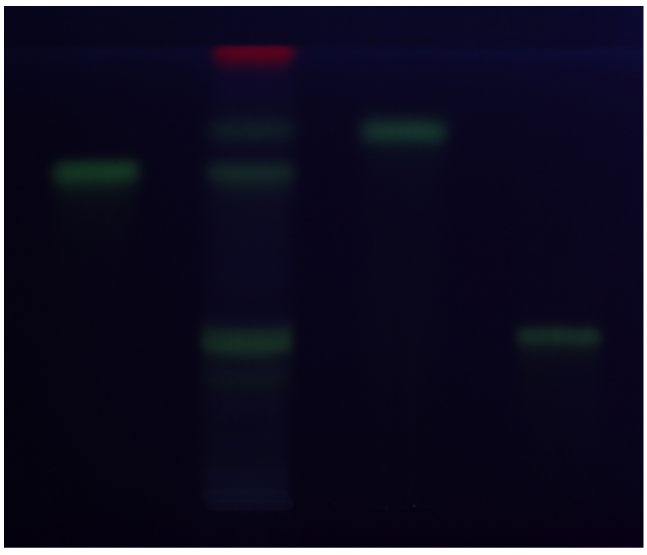
isovitexin:	1.5 µl of a 0.05 % (w/v) solution in 50 % (v/v) aqueous ethanol
qRE:	12 µl of a 1 % (w/v) solution in 50 % (v/v) aqueous ethanol
vitexin:	1 µl of a 0.09 % (w/v) solution in 25 % (v/v) aqueous ethanol
schaftoside:	1 µl of a 0.23 % (w/v) solution in methanol

Reagent mixture: Natural products - polyethylene glycol reagent (NP/PEG)

Preparation: Dissolve 0.25 g of diphenylboric acid 2-aminoethylester and 1.25 g of polyethylene glycol 400 in 25 mL of methanol.

Dip the plate in the reagent mixture and dry for 15 minutes at room temperature.

Expose to UV light at 365 nm

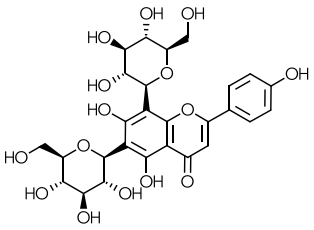
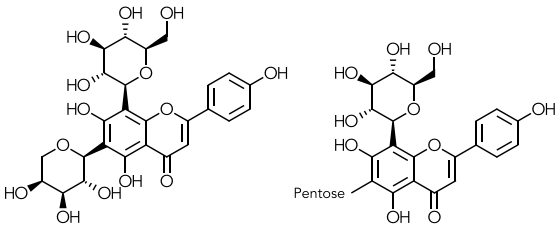
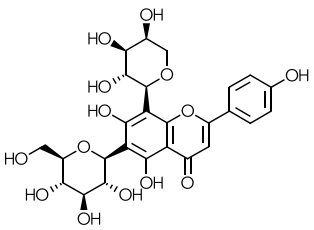


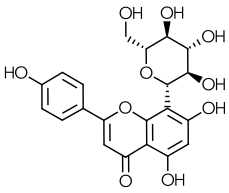
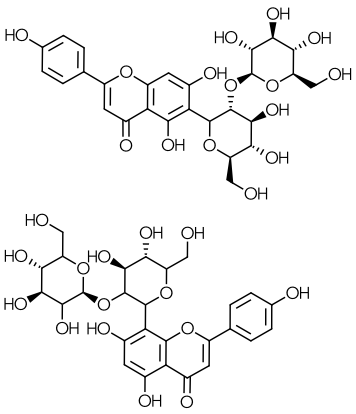
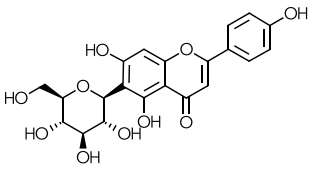
HPLC

Precolumn: Ascentis® Express C18 0.5 cm × 3.0 mm 2.7 µm
Column: Ascentis® Express C18 15 cm × 3.0 mm 2.7 µm
Sample: 8 µl 2.2 % qRE (w/v) solution in 50 % (v/v) aqueous ethanol
Flow: 0.40 ml/min
Temperature: 25 °C
Mobile phase: A: 0.1 % formic acid (v/v) in water
B: methanol
Detection: Diode Array Detector, 330 nm
Gradient:

Time (mn)	A %	B %
0	97	3
10	85	15
25	65	35
35	65	35
50	0	100
60	0	100

Quantified substances

Compound	CAS No	2D Structure	Peak No
Vicenin 2	23666-13-9		1
Isoschaftoside OR apigenin-6-C-pentoside-8-C-glucoside	NA		2, 3
Schaftoside	NA		4

Compound	CAS No	2D Structure	Peak No
Vitexin	3681-93-4		5
Isovitexin-2''-O-glucoside OR vitexin-2''-O-glucoside	NA		6
Isovitexin	29702-25-8		7