

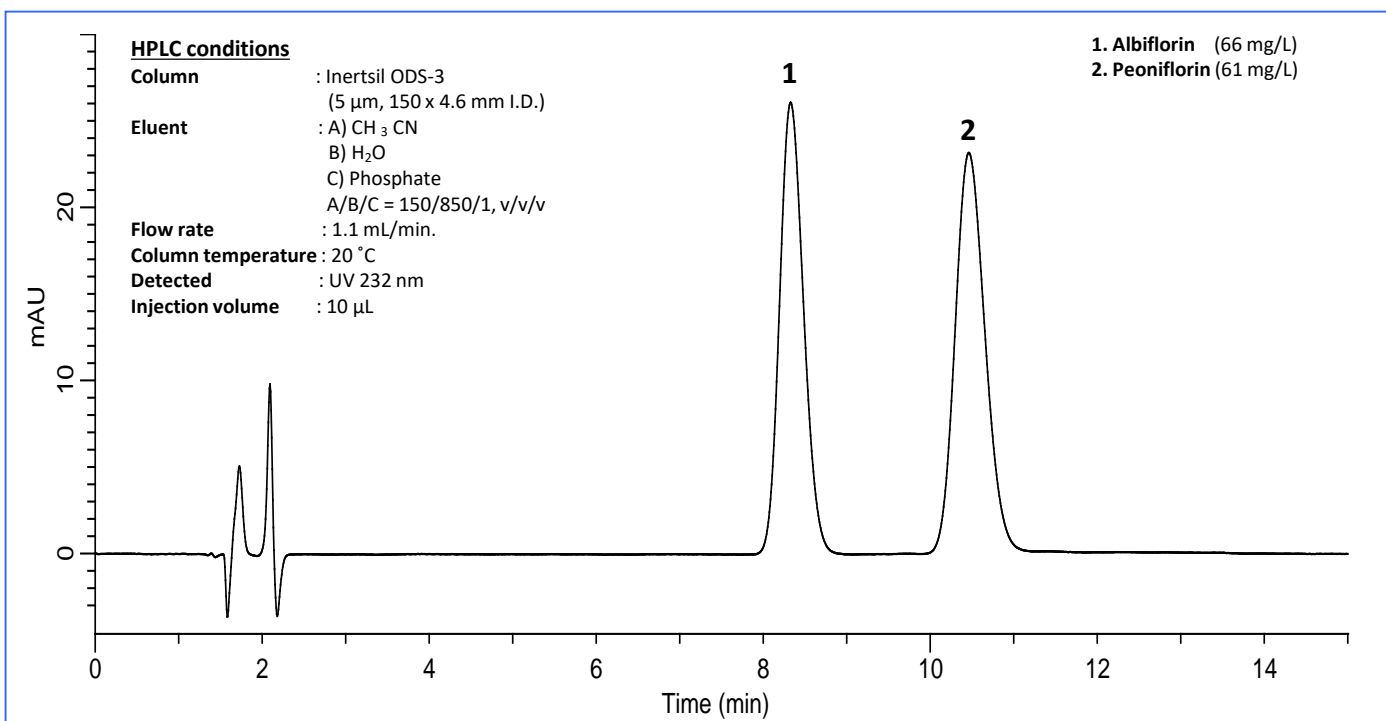
Analysis of peony (Chinese paeoniflorin) in accordance with the 15th edition of the Japanese Pharmacopoeia

Peony Root is a dried, crude drug containing more than 2.0 % paeoniflorin in *Paeonia lactiflora* Pallas roots . Peony Root has a variety of medicinal effects such as sedation and spasmolysis, peripheral vasodilation, anti-inflammation, and gastrointestinal motility acceleration, and is mixed with many Chinese medicines such as Kakkonto. The Japanese Pharmacopoeia HPLC method for the determination of paeoniflorin in peony employs an ODS-column. In addition, since the 15th revision, the compound used in the system suitability test for comparison of resolution was changed from p-hydroxyacetophenone to albiflorin.

In this application, we demonstrate that this HPLC method satisfies the new standards, and the report is made as follows.

Example: Measurement of standard

(T. Fukaya)



System suitability test

When analyzed under the above HPLC conditions,

1. Elution is in the following order, albiflorin and paeoniflorin
2. The resolution of the above two components is 2.5 or greater. Refer to Technical Note No. 38 for the details.
3. For 6 repeat analyses, the relative standard deviation of the peak area of paeoniflorin is not more than 1.5 %.

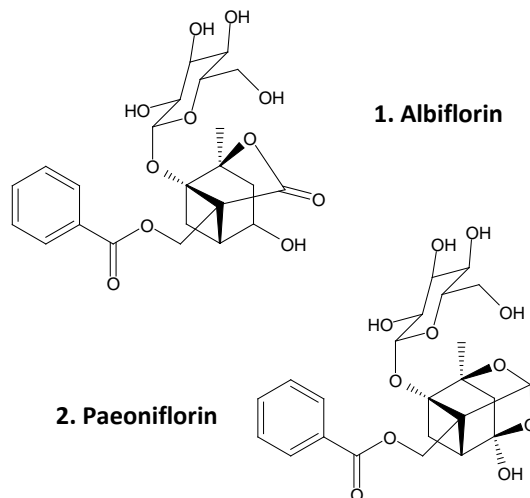
Results

Elution order : Satisfies the provisions
Resolution : 3.60
Relative standard deviation : 0.46 % (Table 1)

N	Area
1	4541443
2	4518594
3	4546018
4	4566490
5	4569764
6	4593467
Average	4548462
RSD (%)	0.457

Table 1: Paeoniflorin
Area value reproducibility

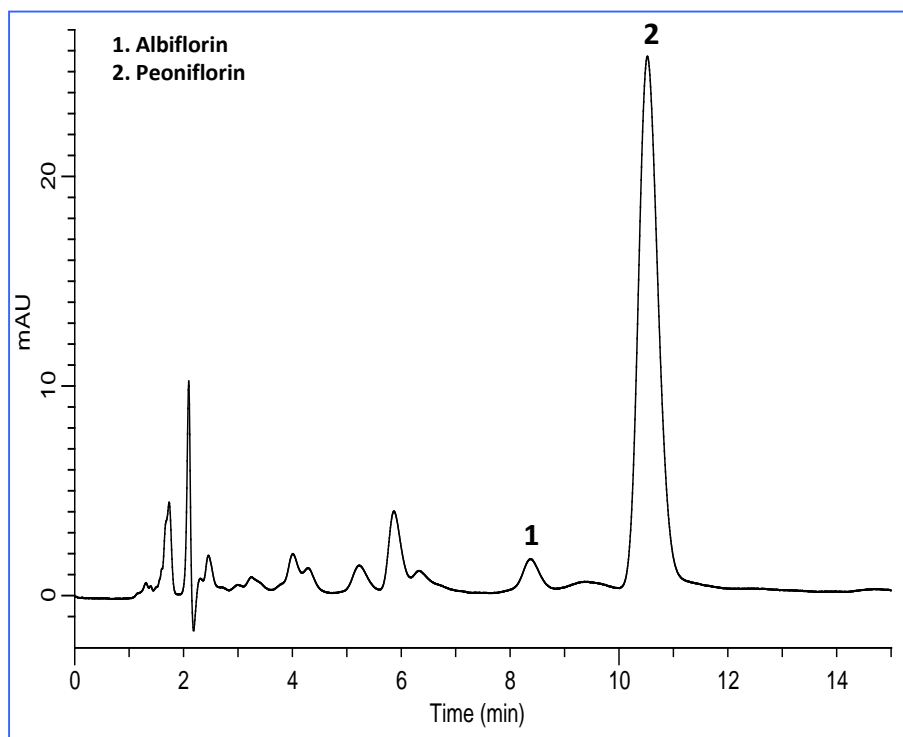
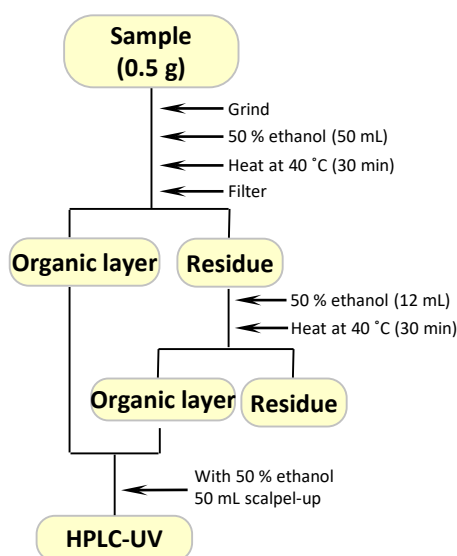
Structural formula



Structures are created using Chemistry 4-D Draw which is provided by ChemInnovation Software, Inc.

Analysis of peoniflorin in marketed peony medicine

Example of pretreatment



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