

# Fructus Forsythiae

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Forsythia is a genus of flowering plants in the family Oleaceae (olive family). There are about 11 species, mostly native to eastern Asia, but one native to southeastern Europe. They are shrubs typically growing to a height of 1–3 m with rough grey-brown bark. The leaves are usually simple but sometimes trifoliate and range from 2–10 cm in length. The actual fruit is a dry capsule, containing several winged seeds. It has slightly fragrant smell and bitter taste.

**Caffeic acid** is also known as hydroxycinnamic acid.

It is found in all plants because it is a key intermediate in the biosynthesis of lignin, one of the principal components of plant biomass and its residues.

**Rutin** or rutoside, quercetin-3-O-rutinoside and sophorin, is the glycoside between the flavonol quercetin and the disaccharide rutinose ( $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 6))- $\beta$ -D-glucopyranose). Rutin is a citrus flavonoid glycoside found in many plants.

**Forsythin** is believed to have antibacterial effect.

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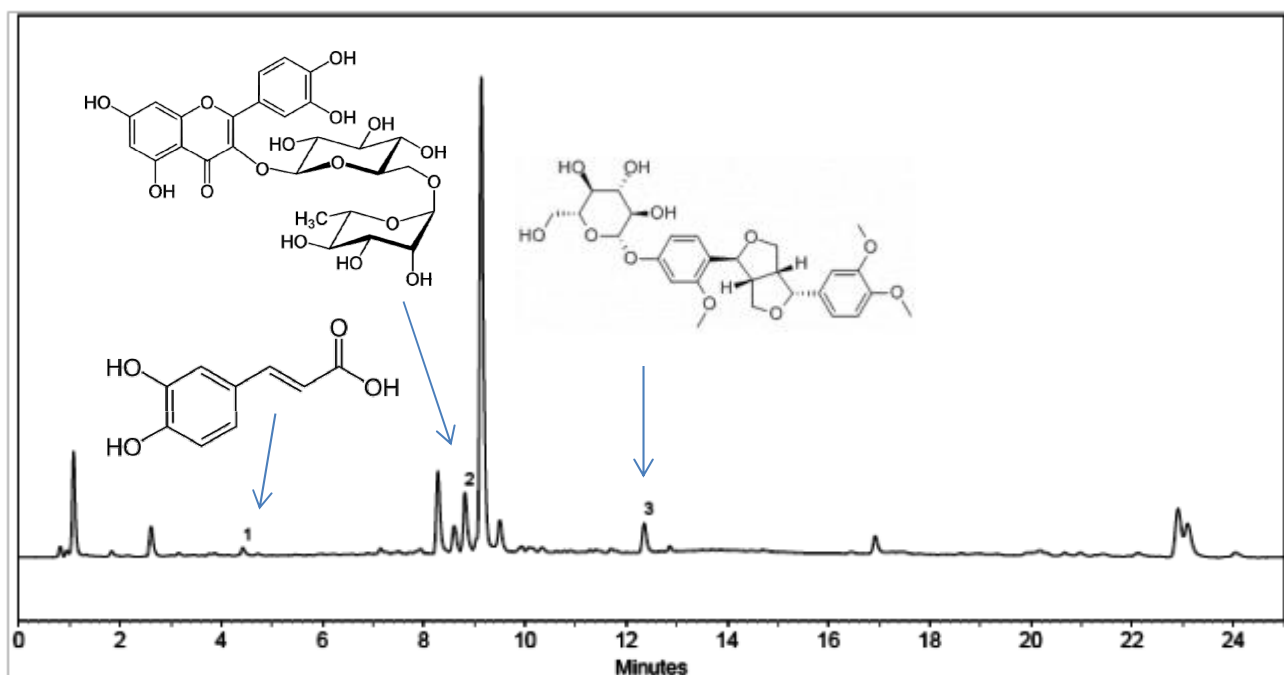
## Chromolith® RP-18 endcapped

### Chromatographic Conditions

**Column:** Chromolith® Performance RP-18 endcapped 100x4.6mm  
**Injection:** 5 µL  
**Detection:** UV 265 nm  
**Flow Rate:** 2.0 mL/min  
**Mobile Phase:** A: Acetonitrile  
                   B: 0.1 % phosphoric acid  
**Temperature:** Ambient  
**Diluent:** Mobile phase  
**Sample:** Alcohol extract of seeds

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Time (min)	% A	% B
0	5	95
10	23	77
12	35	65
22	60	40
25	95	5



### Chromatographic Data

No.	Compound	Time (min)	T <sub>USP</sub>	Resolution
1	Caffeic acid	4.4	1.3	
2	Rutin	8.8	1.2	-
3	Forsythin	12.4	1.2	-