

Rheum Palmatum

Da-Huang, 大黄

Rheum Palmatum or Chinese rhubarb, Turkish rhubarb, Turkey rhubarb, Indian rhubarb, Russian rhubarb or rhubarb root. Currently it is estimated that more than 800 types of compounds in the Chinese medicines that contain rhubarb. Rheum palmatum has anthraquinone glycosides and dianthrone glycosides, which are the main reason why it is used as a laxative. Anthraquinone glycosides include Chrysophanol-1-monoglucoside or Chrysophaein, Emodin-6-monoglucoside, Aloe-emodin-8-monoglucoside, Physcion monoglucoside, Rhein-8-monoglucoside. Dianthrone glycosides include Sennoside A、B、C、D、E、F. Free anthraquinones include Chrysophanol, Emodin, Physcion, Aloe-emodin, Rhein etc. In addition, rhubarb also contains fatty acid, calcium oxalate, glucose, fructose and starch.



1.02129.0001

Rheum Palmatum

Chromolith® RP-18 endcapped

Chromatographic Conditions

Column: Chromolith® Performance RP-18 endcapped 100x4.6mm

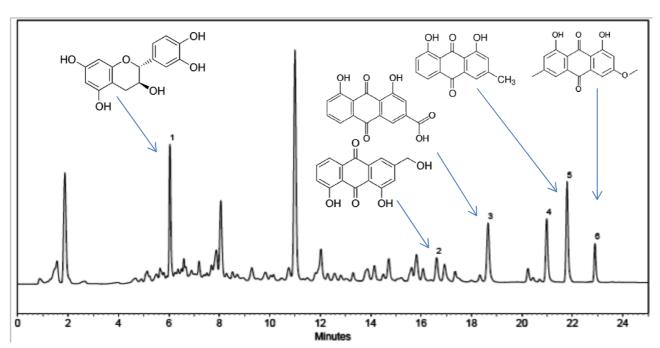
 $\begin{array}{ll} \text{Injection:} & 5 \ \mu\text{L} \\ \text{Detection:} & \text{UV 254 nm} \\ \text{Flow Rate:} & 2.0 \ \text{mL/min} \\ \text{Mobile Phase:} & \text{A: Methanol} \end{array}$

B:Milli-Q water

Temperature: 30 °C
Diluent Mobile phase

Sample: Alcohol extract of roots

| Time (min) | % A | % B |
|------------|-----|-----|
| 0 | 5 | 95 |
| 2 | 5 | 95 |
| 4 | 25 | 75 |
| 18 | 70 | 30 |
| 22 | 95 | 5 |



Chromatographic Data

| No. | Compound | Time (min) | T_{USP} | Resolution |
|-----|---------------------|------------|-----------|------------|
| 1 | Catechin | 6.1 | 1.1 | - |
| 2 | Aloe Emodin | 16.6 | 1.2 | - |
| 3 | Rhein | 18.6 | 1.4 | - |
| 4 | Emodin | 21.0 | 1.4 | - |
| 5 | Chrysophanol | 21.8 | 1.4 | - |
| 6 | Physcion (Parietin) | 22.8 | 1.4 | - |