

# SCUTELLARIA BAICALENSIS



This product is the dried root of *Scutellaria baicalensis* Georgi, a plant of the Lamiaceae family. It is dug up in spring and autumn, the fibrous roots and mud and sand are removed, the rough skin is knocked off after being exposed to the sun, and it is dried in the sun.

## 【 CHARACTER 】

This product is conical, twisted, 8~25cm long and 1~3cm in diameter. The surface is brown or dark yellow, with sparse wart-like fine root marks. The upper part is rough, with twisted longitudinal wrinkles or irregular reticulations, and the lower part has smooth lines and fine wrinkles. Hard and brittle, easy to break, yellow in cross section, reddish brown in the center; old roots are rotten or hollow in the center, dark brown or brown-black. The smell is slight and the taste is bitter. The cultivated products are slender and have many branches. The surface is light yellowish brown, the skin is close to each other, and the longitudinal wrinkles are fine. The cross section is yellow or light yellow, slightly horny. Slightly bitter taste.

## 【 IDENTIFICATION 】

(1) The powder of this product is yellow. Bast fibers are scattered singly or in several bundles, fusiform, 60 to 250  $\mu\text{m}$  long, 9 to 33  $\mu\text{m}$  in diameter, with thick walls and fine pores and grooves. The stone cells are round, square or rectangular, with thick or very thick walls. Cork cells are brown and polygonal. Reticulated ducts are common, with diameters ranging from 24 to 72  $\mu\text{m}$ . The wood fibers are mostly broken, about 12  $\mu\text{m}$  in diameter, and have sparse diagonal pores. There are many starch granules, single granules are spherical, 2 to 10  $\mu\text{m}$  in diameter, with obvious umbilical points, and complex granules are composed of 2 to 3 sub-granules.

(2) Take 1g of this product powder, add 30ml of a mixed solution of ethyl acetate-methanol (3:1), heat and reflux for 30 minutes, let cool, filter, evaporate the filtrate to dryness, add 5ml of methanol to the residue to dissolve, and take the supernatant liquid as the test solution. Another 1g of *Scutellaria baicalensis* control medicinal material was taken, and the reference medicinal material solution was prepared in the same way. Then take the baicalin reference substance, baicalein reference substance, and wogonin reference substance, and add methanol to prepare a solution containing 1 mg, 0.5 mg, 0.5 mg per 1 ml, respectively, as a reference solution. According to the thin layer chromatography (General Chapter 0502) test, absorb 2 $\mu\text{l}$  of each of the above test solution, control drug solution and 1 $\mu\text{l}$  of each of the above three reference solution, respectively spot on the same polyamide film, with toluene-ethyl acetate-methanol -Formic acid (10: 3: 1: 2) is used to expand

Agent, pre-saturated for 30 minutes, unfold, take out, dry, and inspect under UV light (365nm). In the chromatogram of the test product, spots of the same color appear at the positions corresponding to the chromatogram of the reference medicinal material; three identical dark spots appear at the positions corresponding to the chromatogram of the reference substance.



**【 EXAMINE 】**

The moisture content must not exceed 120% (General Rule 0832 Second Method).

The total ash content shall not exceed 6.0% (General Chapter 2302).

**【 EXTRACT 】**

Determine according to the hot soak method under the determination of alcohol-soluble leachables (General Chapter 2201), using dilute ethanol as the solvent, not less than 40.0%.

**【 CONTENT DETERMINATION 】**

Determine according to high performance liquid chromatography (General Chapter 0512).

Chromatographic conditions and system suitability test: Octadecylsilane bonded silica gel is used as the filler;

methanol-water-phosphoric acid (47:53:02) is used as the mobile phase; the detection wavelength is 280nm. The number of theoretical plates should not be less than 2500 based on the peak value of *Scutellaria baicalensis*.

Preparation of the reference substance solution: Take an appropriate amount of *Scutellaria baicalensis* reference substance that has been dried under reduced pressure at 60°C for 4 hours, weigh it accurately, and add methanol to prepare a solution containing 60% of the solution per 1 ml.

Preparation of the test solution: Take about 0.3g of the medium powder of this product, weigh it accurately, add 40ml of 70% ethanol, heat and reflux for 3 hours, let it cool, filter, put the filtrate into a 100ml measuring bottle, and divide it with a small amount of 70% ethanol. Wash the container and residue, filter the washing liquid into the same measuring bottle, add 70% ethanol to the mark, and shake well. Precisely measure 1ml and place 10ml

In the measuring flask, add methanol to the mark, shake well, and you have it.

The measurement method is to accurately absorb 10% each of the reference solution and the test solution, inject them into the liquid chromatograph, and measure.

Calculated as a dry product, this product contains no less than 9.0% baicalin (C<sub>21</sub>H<sub>18</sub>O<sub>11</sub>).

**DECOCTION PIECES****【 PROCESSED 】**

Remove impurities from *Scutellaria baicalensis* slices, boil them in boiling water for 10 minutes, take them out, simmer them thoroughly, cut them into thin slices, and dry them; or steam them for half an hour, take them out, cut them into thin slices, and dry them (be careful to avoid exposure to the sun).

**【 CHARACTER 】**

This product is a round or irregular shaped slice. The outer skin is yellowish brown or tan. The cut surface is yellow-brown or yellow-green with radial texture.

**【 CONTENT DETERMINATION 】**

The same medicinal materials, containing baicalin (C<sub>21</sub>H<sub>18</sub>O<sub>11</sub>) shall not be less than 8.0%.

**【 IDENTIFICATION 】**

Same medicinal materials.

Wine Scutellaria baicalensis: Take Scutellaria baicalensis slices and fry them dry according to the wine roasting method (General Rule 0213).

**【 CHARACTER 】**

This product is shaped like skullcap slices. Slightly burnt and slightly aromatic of wine.

**【 CONTENT DETERMINATION 】**

With the same medicinal materials, the content of Scutellaria baicalensis (C<sub>21</sub>H<sub>18</sub>O<sub>11</sub>) shall not be less than 8.0%.

**【 IDENTIFICATION 】**

Same medicinal materials.

**【 NATURE, FLAVOR AND MERIDIAN TROPISM 】**

Bitter, cold. Returns to the lung, gallbladder, spleen, large intestine and small intestine meridians.

**【 FUNCTIONS AND INDICATIONS 】**

Clears away heat and dampness, purges fire and detoxifies, stops bleeding, and prevents miscarriage. It is used for dampness-warm, summer-dampness, chest tightness and vomiting, dampness-heat fullness, diarrhea, jaundice, lung-heat cough, high fever and polydipsia, blood-heat vomiting epistaxis, carbuncle and sore, and fetal movements.

**【 USAGE AND DOSAGE 】**

3~10g.

**【 STORAGE 】**

Store in a ventilated and dry place, away from moisture.

