

CHUANXIONG



This product is the dried rhizome of the plant *Ligusticum chuanxiong* Hort. of the Apiaceae family. It is dug up in summer when the nodes on the stem are prominent and slightly purple, the sand is removed, the stem is dried in the sun, and the fibrous roots are removed.

【 PROPERTIES 】

This product is an irregular nodular fist-shaped mass with a diameter of 2 to 7 cm. The surface is gray-brown or brown, rough and wrinkled, with many parallel raised nodes, a sunken circular stem scar on the top, and many small tubercle-like root scars on the lower side and the nodes. The texture is solid and not easy to break. The cross section is yellow-white or gray-yellow, with scattered yellow-brown oil chambers, and the cambium ring is wavy. The smell is strong and fragrant, bitter and spicy, with a slight numbing feeling on the tongue and a slight sweet aftertaste.

【 IDENTIFICATION 】

(1) Cross-section of this product: The cork layer is composed of more than 10 rows of cells. The cortex is narrow, with scattered root-trace vascular bundles, and its cambium is obvious. The phloem is wide, and the cambium ring is wavy or irregularly polygonal. The xylem vessels are polygonal or circular, mostly single-row or arranged in a "V" shape, and occasionally there are wood fiber bundles. The pith is larger. There are many oil chambers scattered in the parenchyma, which are sub-circular, oval or irregular in shape, light yellow-brown. The oil chambers near the cambium are small and gradually become larger outward; the parenchyma cells are rich in starch granules, and some parenchyma cells contain calcium oxalate crystals, which are in the form of sub-circular clumps or clusters of crystals. The powder is light yellow-brown or gray-brown. There are many starch granules, and the single granules are oval, oblong, sub-circular, oval or kidney-shaped, with a diameter of 5~16mm and a length of about 21mm, with umbilical points, long slits or herringbone shapes; occasionally there are multiple granules, which are composed of 2~4 sub-granules. Calcium oxalate crystals exist in the parenchyma cells, in the form of sub-circular clumps or clusters of crystals, with a diameter of 10~25μm. The cork cells are dark yellow-brown, polygonal in surface view, and slightly curved. Most of the oil chambers have been broken, and oil chamber fragments can occasionally be seen. The secretory cell walls are thin and contain more oil droplets. The main vessels are spiral vessels, and there are also reticular vessels and ladder vessels, with a diameter of 14~50μm.

(2) Take 1g of the powder of this product, add 5ml of petroleum syrup (30-60°C), let it stand for 10 hours, shake it from time to time, let it stand, take 1ml of the supernatant, evaporate it, add 1ml of methanol to the residue to dissolve it, then add 2-3 drops of 2% 3,5-dinitrobenzoic acid in methanol and 2 drops of methanol-saturated potassium hydroxide solution to produce a red-purple color.

(3) Take 1g of the powder of this product, add 20ml of ethyl acetate, heat and reflux for 1 hour, filter, evaporate the filtrate, and add 2ml of ethyl acetate to the residue to dissolve it as the test solution. Take 1g of Chuanju reference medicinal material and prepare the reference medicinal material solution in the same way. Take the reference substance of Angelica lactone A and add ethyl acetate to prepare a solution containing 0.1mg per 1ml (placed in a brown volumetric flask) as the reference solution. According to the thin layer chromatography method (General Rule 0502), 100 ml of each of the above three solutions are taken and spotted on the same silica gel GF254 thin layer plate, and n-hexane-ethyl acetate (3:1) is used as the developing solvent. Develop, take out, dry, and examine under ultraviolet light (254nm). In the chromatogram of the test sample, spots of the same color appear at the corresponding positions of the chromatogram of the reference medicinal material and the chromatogram of the reference sample.

【 INSPECTION 】

The moisture content shall not exceed 12.0% (General Rule 0832 Method 4).

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

The acid-insoluble ash content shall not exceed 2.0% (General Rule 2302).

【 EXTRACT 】

According to the hot leaching method under the alcohol-soluble extract determination method (General Rule 2201), ethanol is used as the solvent, and it shall not be less than 12.0%.

【 CONTENT DETERMINATION 】

According to the high performance liquid chromatography method (General Rule 0512). Chromatographic conditions and system suitability test Octadecylsilane bonded silica gel is used as filler; methanol-1% acetic acid solution (30:70) is used as mobile phase; detection wavelength is 321 nm. The number of theoretical plates calculated based on ferulic acid peak should be no less than 4000. Preparation of reference solution Take an appropriate amount of ferulic acid reference, accurately weigh it, place it in a brown volumetric flask, add 70% methanol to make a solution containing 20 grams per 1 ml, and obtain it. Preparation of test solution Take about 0.5g of this product powder (passed through a No. 4 sieve), accurately weigh it, place it in a stoppered conical flask, accurately add 50ml of 70% methanol, plug it tightly, weigh it, heat and reflux for 30 minutes, cool it, weigh it again, make up the lost weight with 70% methanol, shake it well, let it stand, take the supernatant, filter it, take the filtrate, and obtain it. Determination method Accurately aspirate 10J of reference solution and test solution respectively, inject it into a liquid chromatograph, and determine it. This product, calculated on a dry basis, contains no less than 0.10% ferulic acid (C₁₀H₁₀O₄).

DECOCTION PIECES**【 PROCESSING 】**

Remove impurities, separate into large and small, wash, moisten thoroughly, cut into thick slices, and dry.

【 PROPERTIES 】

This product is an irregular thick slice, with a gray-brown or brown outer skin and wrinkles. The cut surface is yellow-white or gray-yellow, with obvious wavy rings or polygonal textures, and scattered yellow-brown oil spots. The texture is solid. The aroma is strong, and the taste is bitter, pungent, and slightly sweet.

【 IDENTIFICATION 】 【 INSPECTION 】 (WATER CONTENT, TOTAL ASH) 【 EXTRACT 】**【 CONTENT DETERMINATION 】**

Same as the medicinal material.

【 NATURE AND FLAVOR AND MERIDIANS 】

Pungent, warm. It enters the liver, gallbladder, and pericardium meridians.

【 FUNCTIONS AND INDICATIONS 】

Activate blood circulation and qi, dispel wind and relieve pain. Used for chest pain, chest and rib pain, swelling and pain due to falls, irregular menstruation, amenorrhea, dysmenorrhea, abdominal pain due to symptoms, headache, and rheumatic pain.

【 USAGE AND DOSAGE 】

3~10g.

【 STORAGE 】

Store in a cool and dry place to prevent moth damage.

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