

CODONOPSIS PILOSULA



This product is the dried root of *Codonopsis pilosula* (Franch.) Nannf., *Codonopsis pilosula* Nannf. var. *modesta* (Nannf.) L. T. Shen or *Codonopsis tangshen* Oliv of the Campanulaceae family. It is dug up in autumn, washed and dried in the sun.

【 PROPERTIES 】

Dangshen is long cylindrical, slightly curved, 10-35cm long, 0.4-2cm in diameter. The surface is grayish yellow, yellow-brown to grayish brown, with many warty stem scars and buds on the root head, and the top of each stem scar is concave and dot-shaped; there are dense annular horizontal stripes under the root head, which gradually become sparse downwards, and some reach half of the total length. The cultivated products have fewer or no annular horizontal stripes; the whole body has longitudinal wrinkles and scattered horizontal lenticel-like protrusions, and there are often dark brown colloids at the broken roots. The texture is slightly soft or slightly hard and slightly tough, and the cross section is slightly flat, with cracks or radial textures. The cortex is light brown to yellow-brown, and the wood is light yellow to yellow. It has a special aroma and tastes slightly sweet. *Codonopsis pilosula* (Western *Codonopsis pilosula*) 10-35cm long, 0.5-2.5cm in diameter. The surface is yellowish white to grayish yellow, and the dense annular horizontal stripes under the root

【 IDENTIFICATION 】

(1) Cross section of this product: There are several to 10 rows of cork cells, with stone cells on the outside, either singly or in groups. The inner layer of the cork is narrow. The phloem is broad, with cracks often appearing on the outside, and scattered groups of light yellow latex tubes, which are often arranged alternately with sieve tube groups. The cambium is ring-shaped. The xylem vessels are scattered singly or several are gathered together, arranged radially. The thin-walled cells contain inulin.

(2) Take 1g of the powder of this product, add 25ml of methanol, ultrasonically treat for 30 minutes, filter, evaporate the filtrate to dryness, add 15ml of water to dissolve the residue, pass it through a D101 macroporous adsorption resin column (inner diameter 1.5cm, column height 10cm), elute with 50ml of water, discard the water, elute with 50ml of 50% ethanol, collect the eluate, evaporate to dryness, add 1ml of methanol to dissolve the residue, and use it as the test solution. Take another reference substance of *Codonopsis pilosula*, add methanol to make a solution containing 1g per 1ml, and use it as the reference solution. According to the thin layer chromatography method (General Rule 0502), 2~4μl of the test solution and 2R of the reference solution are respectively spotted on the same high-efficiency silica gel G thin layer plate, and n-butanol-glacial acetic acid-water (7:1:05) is used as the developing agent. After development, the plate is taken out, dried, sprayed with 10% sulfuric acid ethanol solution, heated at 100°C until the spots are clearly colored, and inspected under sunlight and ultraviolet light (365nm). In the chromatogram of the test sample, spots of the same color or fluorescent spots appear at the corresponding positions of the chromatogram of the reference.

【 INSPECTION 】

The water content shall not exceed 160% (General Rule 0832 Method 2).

The total ash content shall not exceed 5.0% (General Rule 2302).

The sulfur dioxide residue shall be determined according to the sulfur dioxide residue determination method (General Rule 2331) and shall not exceed 400mg/kg.

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【 EXTRACT 】

Determine by hot soaking method under the alcohol-soluble extract determination method (General Rule 2201), using 45% ethanol as solvent, not less than 55.0%.

DECOCTION PIECES

【 PROCESSING 】

Codonopsis slices Remove impurities, wash, moisten thoroughly, cut into thick slices, and dry.

【 PROPERTIES 】

This product is in the form of thick, quasi-circular slices. The outer skin is grayish yellow, yellowish brown to grayish brown, and sometimes many warty stem scars and buds can be seen on the root head. The cut surface of the cortex is light brown to yellowish brown, and the wood is light yellow to yellow, with cracks or radial textures. It has a special aroma and tastes slightly sweet.

【 IDENTIFICATION 】 【 INSPECTION 】 【 EXTRACT 】

Same as the medicinal material.

Rice-fried Codonopsis Take Codonopsis slices, stir-fry with rice according to the stir-fry method (General Rule 0213) until the surface is dark yellow, take out, sieve out the rice, and let cool. For every 100kg of Codonopsis slices, use 20kg of rice.

【 PROPERTIES 】

This product is shaped like Codonopsis pilosula, with a dark yellow surface and occasional burnt spots.

【 INSPECTION 】

Water content: same as the medicinal material, not more than 10.0%.

【 IDENTIFICATION 】 【 INSPECTION 】 (TOTAL ASH CONTENT, SULFUR DIOXIDE RESIDUE)

【 EXTRACTATION 】

Same as the medicinal material.

【 NATURE AND FLAVOR AND MERIDIANS 】

Sweet, flat. Enters the spleen and lung meridians.

【 FUNCTIONS AND INDICATIONS 】

Strengthen the spleen and lungs, nourish blood and produce body fluids. Used for spleen and lung qi deficiency, lack of appetite, fatigue, cough, weak asthma, qi and blood deficiency, sallow complexion, palpitations and shortness of breath, thirst due to loss of body fluids, and internal heat and thirst.

【 USAGE AND DOSAGE 】

9~30g.

【 NOTE 】

It is not suitable to be used with Veratrum.

【 STORAGE 】

Place in a ventilated and dry place to prevent moth.