RED GINSENG

This product is the steamed dried root and rhizome of the cultivar of Panax ginseng C. A. Mey. of the Araliaceae family. It is harvested in autumn, washed, steamed, and dried.

【PROPERTIES】

The main root is spindle-shaped, cylindrical or flat square, 3 to 10 cm long and 1 to 2 cm in diameter. The surface is translucent, reddish brown, with occasional opaque dark yellow-brown patches, with longitudinal grooves, wrinkles and fine root marks; the upper part sometimes has intermittent inconspicuous ring marks; the lower part has 2 to 3 twisted and crossed lateral roots with curved fibrous roots or only fibrous root remnants. The rhizome (reed head) is 1 to 2 cm long, with several concave stem marks (reed bowls) on it, and some have 1 to 2 complete or broken adventitious roots (taro). The texture is hard and brittle, with a flat cross section and horny. The smell is slightly fragrant and unique, and the taste is sweet and slightly bitter.

【IDENTIFICATION】

(1) According to the test of [Identification] (1) under the ginseng item, except for the blurred outline of starch granules, other characteristics should be the same.
(2) According to the test of [Identification] (2) under the ginseng item, the same results should be shown.

【INSPECTION】

The water content shall not exceed 120% (General Rule 0832 Method 2).
Other organochlorine pesticide residues shall be determined according to gas chromatography (General Rule 0521).
Chromatographic conditions and system suitability test Analytical column: capillary column (30mX0.32mmX0.25μm) with bonded cross-linked 14% propylphenyl dimethylsiloxane as the stationary liquid (DM1701 or the same type), verification column: capillary column (30mX0.32mmX0.25μm) with bonded cross-linked 5% phenylmethylsiloxane as the stationary liquid (DE5 or the same type); 63Ni-ECD electron capture detector; injection port temperature 230°C, detector temperature 300°C, non-split injection. Constant pressure control mode, initial flow rate is 1.5ml per minute. Program temperature rise: initial temperature 60°C, hold for 0.5 minutes, rise to 170°C at 60°C per minute, then rise to 220°C at 15°C per minute, hold for 5 minutes, then rise to 240°C at 1°C per minute, rise to 280°C at 15°C per minute, hold for 5 minutes. The number of theoretical plates calculated based on the pentachloronitrobenzene peak should not be less than 1X105, and the separation degree of two adjacent chromatographic peaks should be greater than 1.5. Preparation of mixed reference stock solution Accurately weigh appropriate amounts of pentachloronitrobenzene, hexachlorobenzene, heptachlor (heptachlor, heptachlor epoxide), chlordane (cis-chlordane, trans-chlordane, chlordane oxide) pesticide reference substances, accurately weigh, and dissolve them in n-hexane to prepare solutions containing about 100Mg per 1ml. Accurately measure 1 ml of each of the above-mentioned reference substance solutions, place them in the same 100 ml volumetric flask, add n-hexane to the mark, and shake well; or accurately measure 1 ml of the organochlorine pesticide mixed reference substance solution, place it in a 10 ml volumetric flask, add n-hexane to the mark, and shake well to obtain (each 1 ml contains 1 mg of each pesticide reference substance).

Preparation of mixed reference substance solution Accurately measure the above-mentioned mixed reference substance stock solution, and use n-hexane to prepare solutions containing 1 ng, 2 ng, 5 ng, 10 ng, 20 ng, 50 ng, and 100 ng per 1 ml. Preparation of test solution: Take the product, crush it into fine powder (pass through No. 2 sieve), take about 5g, accurately weigh, put it in a stoppered conical flask, add 30ml of water, shake for 10 minutes, accurately add 50ml of acetone, weigh the weight, ultrasonically treat (power 300W, frequency 40kHz) for 30 minutes, let cool, weigh the weight again, make up the lost weight with acetone, then add sodium chloride and accurately add 25ml of dichloromethane, weigh the weight, ultrasonically treat (power 300W, frequency 40kHz) for 15 minutes, let cool, weigh the weight again, make up the lost weight with dichloromethane, shake to fully dissolve the sodium chloride, let it stand, transfer it to a centrifuge tube, centrifuge (3000 revolutions per minute) for 3 minutes to completely separate the layers, transfer the upper organic phase to a stoppered conical flask containing an appropriate amount of anhydrous sodium sulfate, and let it stand for 30 minutes. Accurately measure 15mh and place it in a 40°C water bath to decompress and concentrate to about 1ml, add about 5ml of n-hexane, decompress and concentrate to near dryness, dissolve it with n-hexane and transfer it to a 5ml volumetric flask, dilute to the scale, shake well, transfer it to a centrifuge tube, slowly add (9-10)lml of sulfuric acid solution, shake for 1 minute, centrifuge (3000 rpm) for 10 minutes, separate the supernatant, add 1ml of water, shake, and take the supernatant.

Determination method: Accurately aspirate 1/1 of the test solution and the mixed reference solution of the corresponding concentration, inject into the gas chromatograph, inject three times continuously, take the average value, and calculate according to the external standard method.

This product contains pentachloronitrobenzene not exceeding 0.1 mg/kg; heptachlor (the sum of heptachlor and heptachlor epoxide) not exceeding 0.05 mg/kg; chlordane (the sum of cis-chlordane, trans-chlordane and oxidized chlordane) not exceeding 0.1 mg/kg.

【CONTENT DETERMINATION】

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

Chromatographic conditions and system suitability test: Octadecylsilane bonded silica gel is used as filler; acetonitrile is used as mobile phase A and water is used as mobile phase B, and gradient elution is performed according to the provisions in the table below; the detection wavelength is 203 nmo, and the number of theoretical plates calculated based on the ginsenoside Rg peak should not be less than 6000.

TIME (MINUTES)	MOBILE PHASE A (%)	MOBILE PHASE B (%)
0~35	19	19
35 ~55	19→29	81→71
55 ~70	29	71
70~100	29→40	71→60

Preparation of reference solution Take ginsenoside Rgi reference, ginsenoside Re reference, ginsenoside Rb1 reference respectively, add methanol to make a mixed solution containing ginsenoside Rb1 0.5mg, ginsenoside Re 0.3mg, ginsenoside Rb1 0.5mg per 1ml, and obtain. Preparation of test solution Take about 1g of the powder of this product (passed through No. 4 sieve), weigh accurately, put it in a Soxhlet extractor, add appropriate amount of chloroform, heat and reflux for 3 hours, discard the chloroform solution, evaporate the solvent from the residue, move it into a stoppered conical bottle together with the filter paper tube, accurately add 50ml of water-saturated n-butanol, stopper, leave overnight, ultrasonically treat (power 250W, frequency 50kHz) for 30 minutes, and filter. Accurately measure 25ml of the filtrate, place it in an evaporating dish and evaporate it to dryness, add methanol to dissolve the residue, transfer it to a 5ml volumetric flask, add methanol to the mark, shake well, filter, and take the filtrate to obtain it.

Determination method: Accurately aspirate 10ml of the reference solution and 10~20ml of the test solution into the liquid chromatograph, and determine it to obtain it. This product, calculated on the basis of dry product, contains not less than 0.25% of the total amount of ginsenoside Rb1 (C42 H72 O14) and ginsenoside Re (C48H82O18), and not less than 0.20% of ginsenoside Rb1 (C54 H92 O23).

DECOCTION PIECES

【PROCESSING】

Moisten thoroughly, cut into thin slices, dry, and crush or mash when used. Red ginseng slices This product is a round or oval thin slice. The outer skin is reddish brown and translucent. The cut surface is flat and horny. It is hard and brittle. The smell is slightly fragrant and unique, and the taste is sweet and slightly bitter.

【CONTENT DETERMINATION】

The total amount of ginsenoside Rgi (C42 H72 O14) and ginsenoside Re (C48 H82 O18) contained in the same medicinal material shall not be less than 0.22%, and ginsenoside Rbi (C54H92O23) shall not be less than 0.18%.

【IDENTIFICATION】 【INSPECTION】

The same medicinal material.

【NATURE AND FLAVOR AND MERIDIANS】

Sweet, slightly bitter, warm. It enters the spleen, lung, heart, and kidney meridians.

【FUNCTIONS AND INDICATIONS】

Greatly replenishes vital energy, restores pulse and consolidates collapse, replenishes qi and retains blood. It is used for physical weakness and collapse, cold limbs and weak pulse, qi and blood retention, and metrorrhagia.

【USAGE AND DOSAGE】

3~9g, decocted separately and taken.

【NOTE】

It is not suitable to be used with Veratrum and Penisula.