ウヤクの指標成分lauroltsineの標準物質としての調製とその品質評価

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Preparation and Quality Evaluation of Lauroltsine from Root of L.strychnifolia Fernandez-Villar (Lauraceae) as a Standard Reference Material

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Summary

The origin of LINDERA RADIX is the root of L.strychnifolia Fernandez-Villar (Lauraceae), as described in the Japanese Pharmacopoeia Fifteenth Edition. Although LINDERA RADIX is identified by monitoring lauroltsine as a characteristic marker for quality control by means of thin-layer chromatography (TLC), a standard reference material of lauroltsine is not available. Here, we present an isolation method and quality evaluation of lauroltsine from the root of L.strychnifolia Fernandez-Villar (Lauraceae) cultivated in Shingu city.

Ground root bark of LINDERA RADIX was defatted with hexane, then extracted with ethyl acetate under a basic condition. The extract was purified through a SiO2 column to afford a crude product, which was recrystallized from 20% HCl to afford lauroltsine hydrochloride as platelet crystals. The impurities in this compound amounted to less than 1% by HPLC measurement, and residual organic solvents amounted to less than 0.02%. Stability tests showed that the compound could be stored at room temperature in the presence of silica gel with protection from light.

The TLC identification test of LINDERA RADIX is significantly improved by the use of authentic lauroltsine hydrochloride as a standard reference material. Further investigation, including quantitative analysis, is in progress.

Key words

LINDERA RADIX, Quality evaluation, Lauroltsine, Japanese Pharmacopoeia, Standard reference material, TLC