



Introduction In Vitro Culture *Withania Somnifera* for Obtain Secondary Metabolites and Further Study

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Ashwagandha is a branching erect shrub height from 30 to 150 cm covered with thick vegetation down (tomentosa). The leaves are oval, up to 10 cm in length and 2-2.5 cm in width. Green or yellow flowers of which then grow red fruit. Ashwagandha roots fleshy, cylindrical, white or light brown in color. Ashwagandha is found in arid parts of India, Asia and Northern Africa.

Ashwagandha contains steroidal compounds are of great interest for researchers, is: steroidal lactones ergostanovogo type, in particular vitanolidy A-Y, degidrovitanolid -R, vitasomniferin -A, vitasomidienon, vitasomniferols A-C, vitaferin A, vitanon and etc. In addition, Ashwagandha contains fitosterolysitoindozidy VII - X and beta-sitosterol, alkaloids (ashvagandin, kuskohigrin, Tropin, psevdotropin, izopellitierin, anaferin), a variety of amino acids, including tryptophan, as well as large amounts of iron.

Vitanolidy (withanolides) - fitosteroidov group representing unsaturated steroidal lactones polioksisteroidy. The first compound of this class - vitaferin A - has been allocated in the 60s. the last century of the Indian plant *Withania somnifera* (fam. *Solanaceae*). Currently, there are several rows of this class of compounds (somniferin, vitanon). Used as biologically active food supplements. Found in *Physalis* have anti-inflammatory, analgesic and anti-cancer effects.

Interest steroidal lactone acting opposite ecdysone (molting hormones) on insects by inhibiting the molting.

Ashwagandha has: antioxidant, toning, anti-aging, antiseptic, blood purifier, anti-viral, anti-inflammatory, immunomodulatory, healing, anabolic properties.

An aqueous extract of Ashwagandha root to prevent the development of lipid peroxidation caused deliberately for experimental purposes in rats and mice (Dhuley 1998a). *Withania somnifera* extract with an equimolar concentration sitoindozidov VII - X and vitaferina A, caused an increase in the level of superoxide dismutase, catalase, glutathione peroxidase and in rat brain (Bhattacharyaetal 1997).

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