

Root of *Platycodon grandiflorum* as calcium ion channel blocker

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Abstract

Platycodon grandiflorum, a perennial herb contained in Campanulaceae family has been used for controlling fever, tonsillitis, and diarrhea in Korea. Its MeOH extract was tested as calcium ion channel blocker. L-type voltage-dependent calcium channel was expressed in *Xenopus* oocytes and calcium concentration change was measured by the current.1) In order to discover an active compound, activity-guided fractionation was carried out using column chromatography packed with various resins such as Silica Gell, Diaion HP20, reversed phased C18, and sephadex LH20, and further separation was performed on a HPLC. We found the fractionating as calcium ion channel blocker. Because calcium ion channel blocker is related with cardiovascular disease, the compound can be a candidate for cardiovascular disease therapy.

Reference

1. Jeong SM, Park HK, Yoon IS, Lee JH, Kim JH, Jang CG, Lee CJ, Nah SY. Cloning and expression of Ca²⁺-activated chloride channel from rat brain. (2005) *Biochem Biophys Res Commun.* 334, 569-76.