

Effect of *Spirodela polyrhiza* on the Synthesis of Basement membranes of Madin-Darby Bovine Kidney Cells

H. Jeon, H.J. Na, D.S. Cha, J.Y. Lee, S.H. Ko, H.J. Park., H.J. Park, S. Baek

Department of Oriental Pharmacy, Woosuk University

Basement membranes (BM) are extracellular matrices associated with epithelia, endothelia, muscle, fat and peripheral nerve. They are involved in cell survival, migration, differentiation. BM functions also include tissue formation and provide mechanical stability as a selective barriers. Laminin and Type-IV collagen are glycoproteins found in BM and have a crucial role in cell adhesion and signalling. Madin-Darby bovine kidney (MDBK) cells are the best established mammalian model for studying epithelial cell biology. The cells form an epithelial monolayer, with tight junctions separating an apical surface from a basolateral membrane facing the filter support and neighbouring cells. In this study, using MDBK cells, the synthesis of the BM proteins such as laminin with or without *Spirodela polyrhiza*(SP) stimulation was analyzed by immunoblotting and SP showed enhanced synthesis of BM proteins without significant cell toxicity.

This work was supported by the Korea Research Foundation Grant funded by the Korean Government(MOEHRD) (The Regional Research Universities Program/Center for Healthcare Technology Development)