

論 文 内 容 要 旨

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学位論文題目	Investigating the Suppressive Effect of Ampelopsis Glandulosa (Wild Grape) On Transcriptional Up-Regulation of Allergic Sensitive Genes (野ブドウによるアレルギー疾患感受性遺伝子発現亢進に対する抑制効果の検討)		
<p>内容要旨</p> <p>As expression level of allergic disease-sensitive genes are correlated with allergic symptom severity, suppression of these gene expressions could be good therapeutics. We have demonstrated that PKC δ signaling and NFAT signaling, involve in histamine H1 receptor (H1R) and IL-9 gene expressions, respectively, are responsible for the pathogenesis of allergic rhinitis. We explore anti-allergic compounds that suppress these signaling pathways and found that wild grape (WG) contains such compounds. Here, we investigated the effect of WG hot water extract (WGE) on the signaling pathways for PKC δ-mediated H1R and NFAT-mediated IL-9 gene expressions. WGE suppressed histamine/PMA-induced H1R gene up-regulation in HeLa cells. Toluene-2,4-diisocyanate (TDI)-induced H1R mRNA elevation in TDI-sensitized rats was also suppressed by WGE treatment. Treatment with WGE in combination with Awa-tea, suppresses NFAT signaling-mediated IL-9 gene, markedly alleviated nasal symptoms. Furthermore, WGE suppressed PMA-induced IL-33 gene up-regulation in Swiss3T3 cells. Data suggest that combination of WGE, suppresses PKC δ signaling with Awa-tea, suppresses NFAT signaling would have distinct clinical and therapeutic advantages as a substitute for anti-allergic drugs. In addition, as the expression level of IL-33 mRNA was correlated with the blood eosinophils number in patients with pollinosis, WG could alleviate eosinophilic inflammation through the suppression of IL-33 gene expression.</p>			