

Immunoglobulin E (IgE) is involved in the onset of allergic reaction, and the suppression of IgE production leads to alleviation of allergic symptoms. We found that mango peel ethanol extract (MPE) significantly suppresses IgE production by human myeloma cell line U266 cells, suggesting that MPE has an anti-allergic effect by inhibiting the production of IgE. Although mangiferin is contained in mango, which suppresses IgE production by U266 cells, it was not contained in MPE. We investigated the suppressive effect of MPE in 2,4-dinitrofluorobenzene (DNFB)-induced allergic contact dermatitis model mice. The elevation of serum IgE level was significantly suppressed by oral administration of MPE. Intake of MPE also suppressed the expression level of IL-4 in the DNFB-challenged ears, suggesting that MPE suppresses the IL-4-mediated maturation into IgE-producing cells. Our findings indicate that MPE has a potential to alleviate the increase in serum IgE level that is feature of type I allergy.

Oral administration of MPE suppressed the elevation of IgE level in serum and the expression of *IL-4 gene* in ear of DNFB-induced allergic contact dermatitis model mice.