

Author: [ADVANCED](#) | Volume Page
 Keyword: |



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(840K\)\]](#) [\[References\]](#)

Suppressing Effects of *Feijoa sellowiana* Berg (Feijoa) on Cytokine Secretion by Intestinal Epithelium

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Intestinal mucosal immunity is very important to the body's defense system and can be affected by extrinsic factors such as bacteria and food components. In the present report we assessed the intestinal immunomodulatory activity of *Feijoa sellowiana* Berg (feijoa), a tropical fruit expected to become widely popular in Japan. We examined the effects of the aqueous extract from feijoa and the *in vitro*-digested feijoa on the secretion of IL-7 and TGF- β from Caco-2 cells that are used as *in vitro* models of intestinal epithelium. We found that both the aqueous extract and the *in vitro*-digested feijoa suppressed the secretion of TGF- β by Caco-2 cells. These results suggest that the continued intake of feijoa may induce a decrease in TGF- β concentrations in intestinal lamina propria, which may in turn cause suppressions of oral tolerance and disorders of mucosal homeostasis. Moreover, the polyphenols from feijoa appear to be involved in the suppressing effect of feijoa on TGF- β secretion by intestinal epithelium.

Keywords: [Feijoa sellowiana](#) Berg (feijoa), [IL-7](#), [TGF- \$\beta\$](#) , [Caco-2](#), [polyphenol](#)

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