

Title	Effects of Mucilage Extracts from <i>Pereskia bleo</i> Leaves on Blood Coagulation Time
Keywords (up to 5)	<i>Pereskia bleo</i> , Mucilage, Blood Coagulation, Natural Products
Authors	Kamonlawan CHOMCHOPBUN ¹ , Rachel Rui Qi LEE ¹ , Ying LEE ² and Hwee Ling KOH ¹ ¹ <i>Department of Pharmacy, National University of Singapore, Singapore</i> ² <i>Leeward Pacific Pte. Ltd., Singapore</i>
Abstract	<i>Pereskia bleo</i> (Kunth) DC or rose cactus, a leafy cactus, has high mucilage content. It was found to be the third most commonly used fresh medicinal plant in Singapore in a survey of 200 fresh medicinal plant users in 2014. ¹ The leaf extracts of <i>P. bleo</i> have demonstrated anti-cancer, anti-oxidant, anti-nociceptive, anti-microbial and anticoagulant activities. ² However, to the best of our knowledge, the mucilage from the leaves of <i>P. bleo</i> has not been studied for biological activity. The aims of this study are to extract mucilage from the leaves of <i>P. bleo</i> under various extraction conditions and to investigate their effects on plasma coagulation. Mucilage from the leaves of <i>P. bleo</i> was extracted with water, 0.14 M NaOH and 0.14 M HCl at 25, 40, 50, 70 and 90 °C. The effects on plasma coagulation were evaluated by measuring prothrombin time (PT) and activated partial thromboplastin time (aPTT). All mucilage extracted with water significantly shortened both PT and aPTT (p<0.001). Mucilage extracted in alkaline solution at 25, 40 and 50 °C shortened PT (p<0.05) without significant effect on aPTT. Conversely, mucilage extracted in alkaline solution at 70 and 90 °C prolonged aPTT (p<0.001) but had no effect on PT. Mucilage extracted with 0.14 M HCl did not significantly alter PT or aPTT. Varying temperature and pH of extraction resulted in extracts with different effects on the plasma coagulation time. Work to identify the active components is in progress.
References	1. Y. Y. Siew, S. Zareisedehizadeh, W. G. Seetoh, S. Y. Neo, C. H. Tan, H. L. Koh, <i>Journal of Ethnopharmacology</i> 2014 , <i>155</i> , 1450-1466. 2. S. Zareisedehizadeh, C. H. Tan, H. L. Koh, <i>Evidence-Based Complement Alternative Medicine</i> 2014 . <i>2014</i> , <i>11</i> .