E01 Product development and sensory evaluation of acceptability of *kuih bingka ubi* made with isomaltulose amongst IMU students and staffs

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Traditional Malay *kuih* is a common local confectionary in demand in the Malaysian diet in terms of sweet taste. In contrast, excessive intake of sugar (sucrose) is detrimental to public health, alternative sweeteners were researched to improve their nutritional value. The usage of functional carbohydrates derived from the isomer of sucrose, isomaltulose (IM) was identified to have benefits like lower glycemic index (GI), ability to sweeten food, and non-cariogenic characteristics. This substitution process was further studied among common local food to identify its feasibility. To analyse the rate of preference of subjects for developed *kuih bingka ubi* (Baked Tapioca Cake) recipes sweetened with sucrose and IM via a 5-point hedonic and Just About Right (JAR) scale amongst International Medical University (IMU) students and staff. A total of 37 students and staff aged 18 to 48 years old were recruited from IMU Bukit Jalil Campus to taste the modified recipe of *kuih bingka ubi* sweetened with sugar ratio (100% sucrose, 50%: 50% sucrose and IM, and 100% IM). A 5-point hedonic scale was used to evaluate five sensory attributes, namely appearance, aroma, taste, texture, and overall acceptability. The sweetness level was assessed with the Just-About-Right scale. Duo-trio tests were carried out to identify the difference between varied recipes (50%: 50% sucrose and IM, 100% IM) and reference (100% sucrose). All the *kuih* were developed successfully. About the *p*-values generated, sweetness (<0.001), aroma (0.032), and overall (0.020) was having significance differences, whereas the other attributes, appearance (0.587), taste (0.096), and texture (0.063) was not showing significant difference. 100% IM sample was rated highest for four out of five attributes in the hedonic scale, namely appearance (70%), taste (84%), texture (81%), and overall (86%); 50%: 50% sucrose to IM sample was rated highest for the attributes of aroma (84%). The current extension of studies provided the brief conclusion that usage of IM in baked *kuih* products was applicable. Amongst the three variations, 100% IM was most accepted by the subject groups with the highest ratings for overall acceptability and major attributes.