**Novel probiotic Enterococcus faecium IS-27526 supplementation increased total**

**salivary sIgA level and bodyweight of pre-school children: A pilot study**

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**ABSTRACT**

 *Enterococcus faecium*IS-27526 is a novel probiotic isolated from dadih, an **s fermented milk** Indonesian traditional fermented buffalo milk. A 90 days randomized double-blind placebo-controlled study of pre-post trial was conducted in pre-school children with two groups, placebo and probiotic group. Ultra High Temperature low fat milk was used as a carrier in each group. The aims of this study were to investigate the effect of *Enterococcus faecium*IS-27526 in milk on humoral immune response and on bodyweight of pre-school children. Total serum IgA and total salivary IgA were measured by sandwich ELISA. The bodyweight of young children was measured. The results showed that total serum IgA did not significantly increase in the probiotic group compared with the placebo group. Total salivary IgA level and the bodyweight significantly increased (p<0.05) in probiotic groups compared to the placebo. Changes of total salivary IgA level were significantly higher in underweight children supplemented with probiotic. Weight gain was observed significantly in children with normal bodyweight supplemented with probiotic. Neither mortality nor weight loss was recorded throughout the study. Taken together, novel probiotic *Enterococcus faecium* IS-27526 has significant positive effects on humoral immune response, salivary IgA, in underweight pre-school children, and on weight gain of pre-school children.

**Keywords:** dadih, novel probiotic, salivary IgA, *Enterococcus faecium* IS-27526, weight gain, pre-school children