

Introduction Diabetes mellitus is a metabolic disorder characterized by chronic hyperglycemia resulting from a defect in insulin secretion and/or insulin action [1]. Managing diabetes without side effects remains a research challenge [14]. These products include propolis, a natural resinous and highly adhesive substance made by bees (*Apis mellifera* L.) from the buds and leaves of certain plants, mixed with pollen and enzymes secreted by the bees [17]. Failure to manage diabetes leads to complications linked to a number of factors, including chronic hyperglycemia, enzymatic glycation of proteins and oxidative stress [6]. In the case of T2DM, hygienic and dietary measures are the first components of treatment, with the introduction of a low-calorie diet rich in dietary fiber; unsaturated fats, and regular physical activity [8]. Bees use propolis as an antiseptic or as a glue to seal the spaces between bees nests, to embalm dead intruders and to protect the hive from contamination [18]. There are two main types of diabetes mellitus: type 1 diabetes mellitus (T1DM), resulting from an autoimmune reaction against the  $\beta$ -cells of the pancreas, and type 2 diabetes mellitus (T2DM), characterized by insulin resistance [4]. If dietary hygiene measures are ineffective, oral antidiabetics (Metformin, glibenclamide, etc.) may be considered. Current therapies for managing diabetes mellitus help to maintain blood glucose levels around normal and prevent the onset of complications.