

Dipeptidyl peptidase-IV (DPP-IV) is a protease responsible for the degradation of the incretin hormone. A number of DPP-IV inhibitors have been approved for use in the treatment of type 2 diabetes. While these inhibitors are effective for this treatment, methods for the prevention of this disease are also required as diabetes patient numbers are currently increasing rapidly worldwide. We screened the DPP-IV inhibitory activities of edible plant extracts with the intention of using these extracts in a functional food supplement for the prevention of diabetes. Rose (*Rosa gallica*) bud extract powder was a promising material with high inhibitory activity. In this study, seven ellagitannins were isolated as active compounds through activity-guided fractionations, and their DPP-IV inhibitory activities were measured. Among them, rugosin A and B showed the highest inhibitory activities and rugosin B was shown as the major contributing compound in rose bud extract powder.

Ellagitannins were isolated as DPP-IV inhibitors from rose bud extract powder. Compounds with the valoneoyl group showed high inhibitory activity.

