

Bioassay-Guided Separation of an α -Amylase Inhibitor Anthocyanin from *Vaccinium arctostaphylos* Berries

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Vaccinium arctostaphylos is a traditional medicinal plant in Iran used for the treatment of diabetes mellitus. In our search for antidiabetic compounds from natural sources, we found that the extract obtained from *V. arctostaphylos* berries showed an inhibitory effect on pancreatic α -amylase *in vitro* [$IC_{50} = 1.91$ (1.89–1.94) mg/mL]. The activity-guided purification of the extract led to the isolation of malvidin-3-*O*- α -glucoside as an α -amylase inhibitor. The compound demonstrated a dose-dependent enzyme inhibitory activity [$IC_{50} = 0.329$ (0.316–0.342) mM].

Key words: *Vaccinium arctostaphylos*, α -Amylase Inhibitory Activity, Malvidin-3-*O*- α -glucoside