

Abstract

Watercress, or *Nasturtium officinale*, is a member of the *Brassicaceae* family, along with other cruciferous vegetables including broccoli, cabbage and kale. Literature shows that watercress is robust in nutritional value. Consumption of watercress has been linked to decreased likelihood of developing various diseases such as cancer, atherosclerosis, diabetes, neurological diseases, and cardiovascular diseases. The therapeutic properties of watercress may be attributed to its rich phytochemical profile. Watercress contains classes of chemical compounds known as antioxidants, phenolic acids, glucosinolates and flavonoids. These phytochemicals are biologically important because they protect biomolecules from degradation by oxygen radicals. In this study, the phytochemicals in watercress were extracted using different solvents. High performance liquid chromatography (HPLC) was utilized to separate the chemical constituents of watercress and gain an understanding of its chemical composition. In addition, the total antioxidant capacity (TAC), total phenolic content (TPC) and total flavonoid content (TFC) were determined using various methods.