

HPLC-UV/DAD PROFILES, PHENOLIC CONTENT, AND FREE RADICAL SCAVENGING CAPACITY OF
COMMERCIAL AMAZONIAN HERBAL MEDICINAL PRODUCTS

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The Peruvian Amazon is known worldwide for its rich biodiversity of medicinal plants and as an important historical centre of traditional medicine. Despite this region is largely considered a great source of potential bio-active natural products, the majority of even locally well-known and commercially available herbal medicines from the Peruvian Amazon, are still poorly characterized especially in terms of phytochemical bio-markers identification. As an important category of phytochemicals, phenolic compounds are dietary constituents widely existing in plants and have been considered to have high antioxidant activity and free radical scavenging capacity. Phenolic compounds have attracted more and more attention as potential agents for preventing and treating many oxidative stress-related diseases. Over the last 20 years, polyphenols have been studied for their potential involvement in many areas including cancer, cardiovascular problems, inflammation and microbial diseases [1, 2].

In the present work, five (5) commercial Amazonian Herbal Medicinal Products, Hydro-ethanol extracts (Tinctures) of *Abuta grandifolia*, *Mansoa alliacea*, *Phyllanthus niruri*, *Maytenus macrocarpa*, *Dracontium lorentense* obtained from the Natural Product Laboratory of Takiwasi Center, have been studied and compared for their native extracts ratio, as well as for the phenolic content and radical scavenging capacity through Folin-Ciocalteu and DPPH spectrophotometric methods, respectively; HPLC-UV/DAD fingerprinting profiles of the crude herbal extracts were also acquired. The overall set of data allowed the acquisition of qualitative and quantitative results, useful for the quality control analysis to support batch to batch reproducibility and extracts standardization. Moreover, by comparison of different batches of *Mansoa alliacea* Tinctures, three (3) flavonoids derivatives were also selected as potential markers for the stability assays.

References

1. Li, A.N., et al., Resources and biological activities of natural polyphenols. *Nutrients*, 2014. 6(12): p. 6020-47.
2. Brewer, M.S., *Natural Antioxidants: Sources, Compounds, Mechanisms of Action, and Potential Applications*. Comprehensive Reviews in Food Science and Food Safety 2011. 10: p. 221-247.