[abstract] ANALYTICAL PROTOCOL FOR DETERMINATION ALPHA MANGOSTIN AS Garcinia mangostana L. MARKER USING HPLC

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\textit{Garcinia mangostana} L., hull part, is empirically used as a traditional medicine for diarrhea, sprue and antipyretic. Its chemical constituents are xanthone compounds such as \(\alpha\)-mangostin, 8-deoxygartanin, gartanin, mangostinone, tovophylin A and cudraxanthone. Even though \(\alpha\)-mangostin is the major compound, however, there is little information for quality and quantity determination of \(\alpha\)-mangostin in mangosteen. Thus, were the aims of this study. The other purpose was to set up a validated method (ICH Harmonized Tripartite Guideline, 2005) for quality control and quantity determination of \(\alpha\)-mangostin from \textit{Garcinia mangostana} L. using reverse-phase HPLC. The method was validated and showed to be linear \((r= 0.999)\), accurate (mean 100.228\%), precise (intra-day variation = 0.835\%), inter-day
variation = 0.635%), specific with good recovery (mean 100,228 %). Total analysis was nearly 5.4 min. The method is applicable for standardization and for routine quality control of α-mangostin in *Garcinia mangostana* L. hull extract and its products.

Keywords: *Garcinia mangostana* L., hull, α-mangostin, reverse-phase, HPLC

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