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Simultaneous determination by UPLC-MS/MS of seven bioactive compounds in rat plasma after oral administration of *Ginkgo biloba* tablets: application to a pharmacokinetic study

Key words: *Ginkgo biloba* tablet, UPLC-MS/MS, Pharmacokinetics

Research Summary

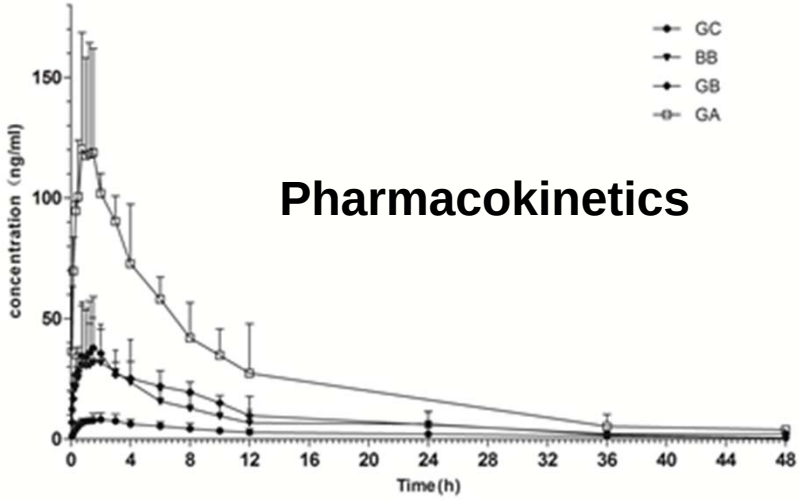
In this study, a UPLC–ESI-MS/MS method was developed and validated for simultaneous quantification of plasma concentrations of BB, GA, GB, GC, QCT, KMF and ISR. It was successfully used to quantify the seven bioactive compounds in rat plasma to support pharmacokinetic studies.





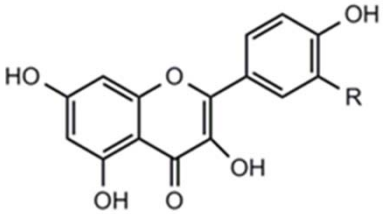


UPLC-MS/MS



Pharmacokinetics

***Ginkgo biloba* Tablets**

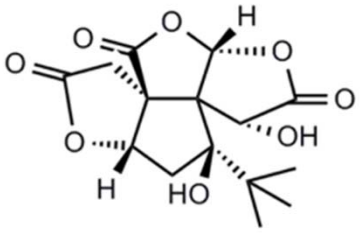


Quercetin (QCT) R=OH

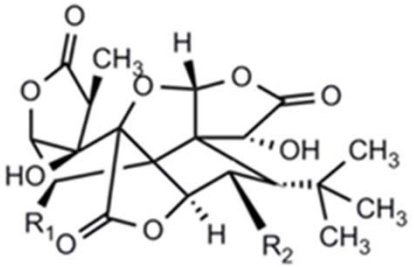
Kaempferol (KMF) R=H

Isorhamnetin (ISR) R=OCH_3

Plasma



Bilobalide (BB)



Ginkgolide A (GA) R_1=H, R_2=H

Ginkgolide B (GB) R_1=OH, R_2=H

Ginkgolide C (GC) R_1=OH, R_2=OH

Innovation points



① **A simple plasma sample pretreatment method.**
② **The analysis time was only 4 min.**
③ **The method is sensitive enough to determine of seven bioactive components at sub-nanograms in rat plasma.**
④ **The method was used to depict the pharmacokinetic profiles GBTs ingredients comprehensively.**



