Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **32** (4): 610-2 (2013)

Short communication

Received: February 5, 2013
Accepted: February 11, 2013

Comparison of the Inhibition Capability of Baicalin and Baicalein towards Intestinal UDP-Glucuronosyltransferase (UGT) 1A10

Hong-Yan GONG [1], Wei-Cai CHENG [2] *, Yong WANG [2], Yong WAN [2] & Jun NIU [1]

[1] *Qilu Hospital of Shandong University, Jinan, Shandong, 250012, Chna*
[2] *Yantaishan Hospital, Yantai, Shandong Province, China*

***SUMMARY*. Baicalin, the important flavonoid component isolated from *Scutellariae radix,* has been demonstrated to exhibit multiple pharmacological activities, and its anti-tumor activity has been drawing more and more attention in recent years. Baicalin can be metabolized into baicalein in intestine. The present study aims to compare the inhibition capability of baicalin and baicalein towards the specific intestinal drug metabolizing enzyme UDP-glucuronosyltransferase (UGT) 1A10. Baicalein showed stronger inhibition than baicalin towards UGT1A10, with the residual activity to be 46.5 and 5.5% of control activity for 100 μM of baicalin and baicalein, respectively. Noncompetitive inhibition was demonstrated for the inhibition of baicalein towards UGT1A10, and the inhibition kinetic parameter (K_i) was calculated to be 8.1 μM. All these results showed the stronger inhibition capability of baicalin than baicalein towards intestinal UDP-glucuronosyltransferase (UGT) 1A10.**

KEY WORDS: Baicalein, Baicalin, UDP-glucuronosyltransferases (UGTs).

* Author to whom correspondence should be addressed. *E-mail:* weicaicheng139@163.com

ISSN 0326-2383