Supporting Information

Characterization of human UDP-glucuronosyltransferases responsible for glucuronidation and inhibition of norbakuchinic acid, a primary metabolite of hepatotoxicity and nephrotoxicity component bakuchiol in *Psoralea corylifolia* L.

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**Figure Caption**

**Figure S1** MS/MS spectra of norbakuchinic acid and its two glucuronides.

**Figure S2** Kinetic profiles for glucuronidation of norbakuchinic acid by various types of microsomes. (a) monkey liver microsomes (MkLM); (b) rat liver microsomes (RLM); (c) guinea pig liver microsomes (GpLM); (d) rabbit liver microsomes (RaLM); (e) dog liver microsomes (DLM); (f) mice liver microsomes (MLM); In each panel, the insert figure showed the corresponding Eadie-Hofstee plot. All experiments were performed in triplicate.

**Figure S3** Inhibition evaluation of NBKA toward Expressed UGT1A6-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A6-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.

**Figure S4** Inhibition evaluation of NBKA toward Expressed UGT1A7-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A7-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.

**Figure S5** Inhibition evaluation of NBKA toward Expressed UGT1A8-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A8-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.

**Figure S6** Inhibition evaluation of NBKA toward Expressed UGT1A9-catalyzed propofol glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A9-catalyzed propofol glucuronidation. All experiments were performed in triplicate.
Figure S7  Inhibition evaluation of NBKA toward Expressed UGT1A10-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A10-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.

Figure S8  Inhibition evaluation of NBKA toward Expressed UGT2B7-catalyzed AZT glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT2B7-catalyzed AZT glucuronidation. All experiments were performed in triplicate.

Figure S9  Inhibition evaluation of NBKA toward Expressed UGT2B15-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT2B15-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.

Figure S10  Inhibition evaluation of NBKA toward Expressed UGT2B17-catalyzed SAHA glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT2B17-catalyzed SAHA glucuronidation. All experiments were performed in triplicate.
Figure S1 MS/MS spectra of norbakuchinic acid and its two glucuronides.
Figure S2-a

Figure S2-b
Figure S2-c

Figure S2-d
Figure S2-e

Figure S2-f

Figure S2 Kinetic profiles for glucuronidation of norbakuchinic acid by various types of microsomes. (a) monkey liver microsomes (MkLM); (b) rat liver microsomes (RLM); (c) guinea pig liver microsomes (GpLM); (d) rabbit liver microsomes (RaLM); (e) dog liver microsomes (DLM); (f) mice liver microsomes (MLM); In each panel, the insert figure showed the corresponding Eadie-Hofstee plot. All experiments were performed in triplicate.
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Figure S4 Inhibition evaluation of NBKA toward Expressed UGT1A7-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A7-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.
Figure S5 Inhibition evaluation of NBKA toward Expressed UGT1A8-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A8-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.
**Figure S6** Inhibition evaluation of NBKA toward Expressed UGT1A9-catalyzed propofol glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT1A9-catalyzed propofol glucuronidation. All experiments were performed in triplicate.
Figure S7 Inhibition evaluation of NBKA toward Expressed UGT1A10-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NBKA’s inhibition toward recombinant UGT1A10-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.
Figure S8 Inhibition evaluation of NBKA toward Expressed UGT2B7-catalyzed AZT glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT2B7-catalyzed AZT glucuronidation. All experiments were performed in triplicate.
Figure S9 Inhibition evaluation of NBKA toward Expressed UGT2B15-catalyzed 4-MU glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT2B15-catalyzed 4-MU glucuronidation. All experiments were performed in triplicate.
Figure S10 Inhibition evaluation of NBKA toward Expressed UGT2B17-catalyzed SAHA glucuronidation. Concentration-dependent plot (a) and Dixon plot (b) of NKBA’s inhibition toward recombinant UGT2B17-catalyzed SAHA glucuronidation. All experiments were performed in triplicate.