

Supplementary Material

Accurate and sensitive detection of dipeptidyl peptidase-IV activity by liquid chromatography with fluorescence detection

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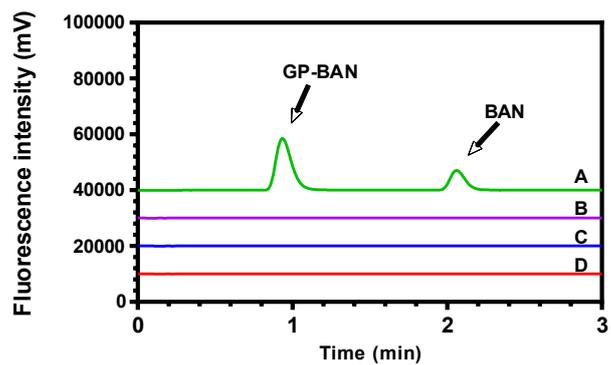


Fig. S1. LC elution patterns of blank enzyme source.

(A) Stock solutions of GP-BAN and BAN in PBS and acetonitrile (1 : 1, V/V), (B) Blank PBS and acetonitrile (1 : 1, V/V), (C) Blank cell homogenate (1 mg/mL) in PBS and acetonitrile (1 : 1, V/V), (D) Blank human kidney microsome (0.1 mg/mL) in PBS and acetonitrile (1 : 1, V/V).

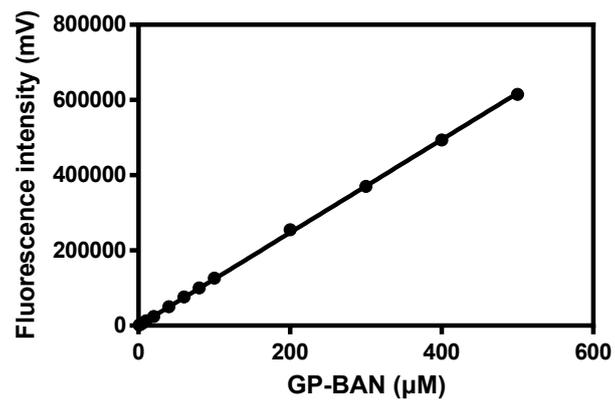


Fig S2. Standard curves for GP-BAN in PBS and acetonitrile (v/v 1:1)

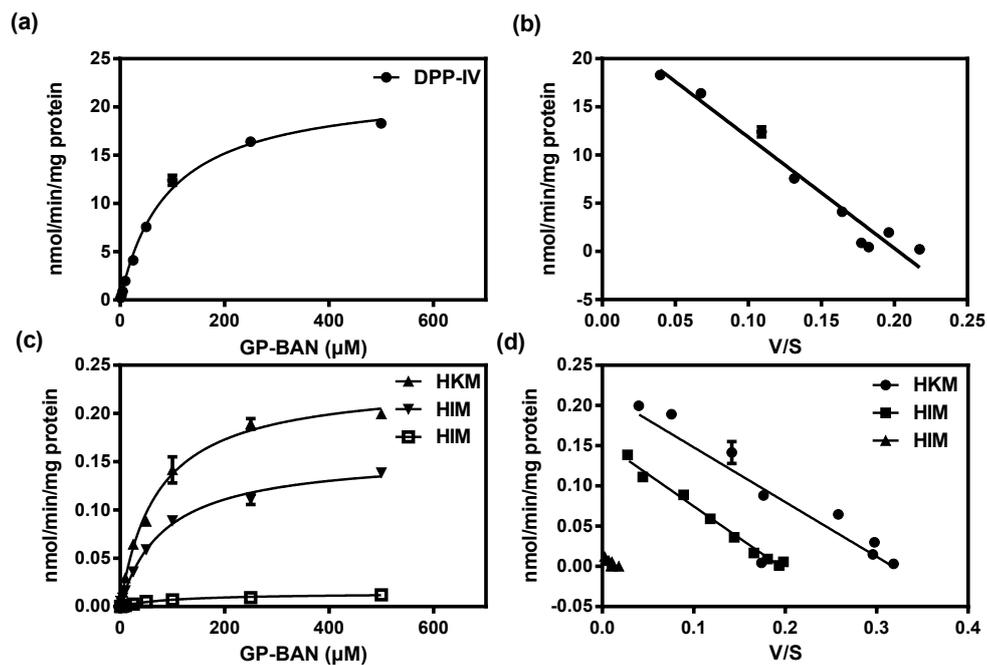


Fig S3. Michaelis-Menten kinetic plots (a and c) and Eadie-Hofstee plots (b and d) of GP-BAN hydrolysis in DPP-IV, HKM, HIM and HLM. The supernatant of reaction mixtures were subjected to LC system to measure fluorescence intensity.

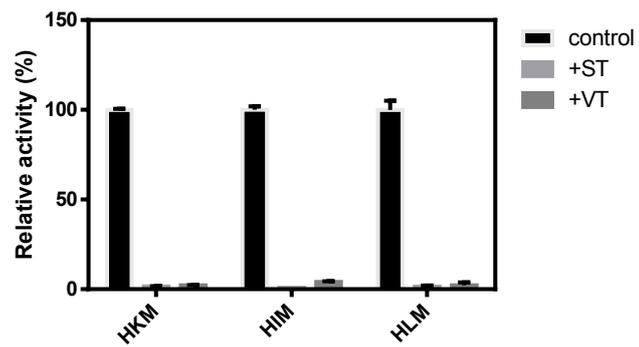


Fig. S4. Effects of selective inhibitors sitagliptin (100 μ M) and vildagliptin (100 μ M) on GP-BAN hydrolysis in human tissues microsomes.

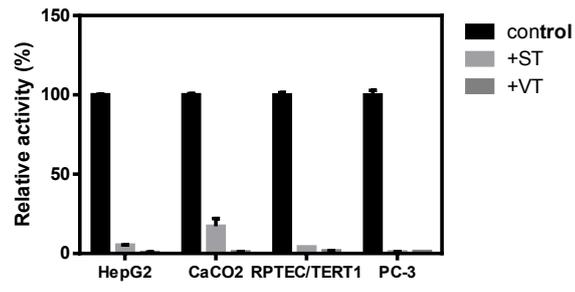


Fig S5. Effects of selective inhibitors sitagliptin (100 μ M) and vildagliptin (100 μ M) on GP-BAN hydrolysis in Cell lines homogenates.

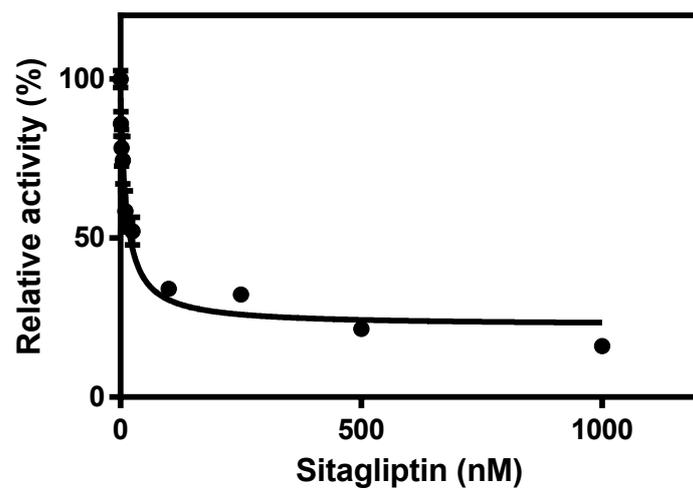


Fig. S6. The inhibitory effects of sitagliptin towards DPP-IV activities.

Table S1. Stability of BAN in reaction mixture.

Sample	100 μ M BAN RSD (%)	10 μ M BAN RSD (%)	1 μ M BAN RSD (%)	Avg RSD (%)
HepG2 S9	99.30	99.70	101.95	101.95
HKM	99.89	98.60	100.56	100.56