

Electronic Supplementary Information

**Colloidal gold immunochromatographic strips for the
detection of kynurenine in clinical samples**

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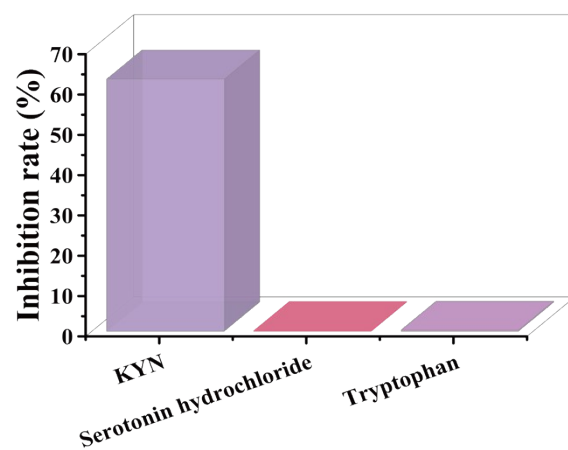


Fig. S1. Specificity of mAbs. The concentration of KYN, serotonin hydrochloride, and tryptophan is 1000 ng/mL.

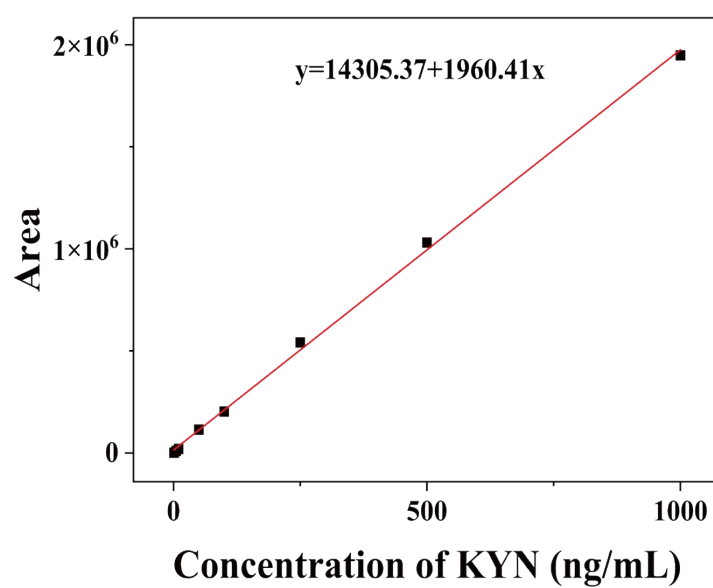
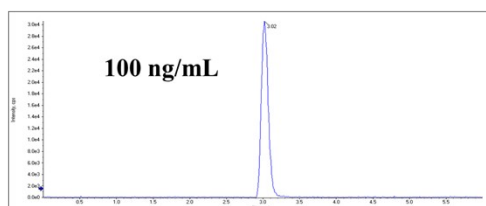


Fig. S2. The standard curve of the KYN by LC-MS/MS.

(a)



(b)

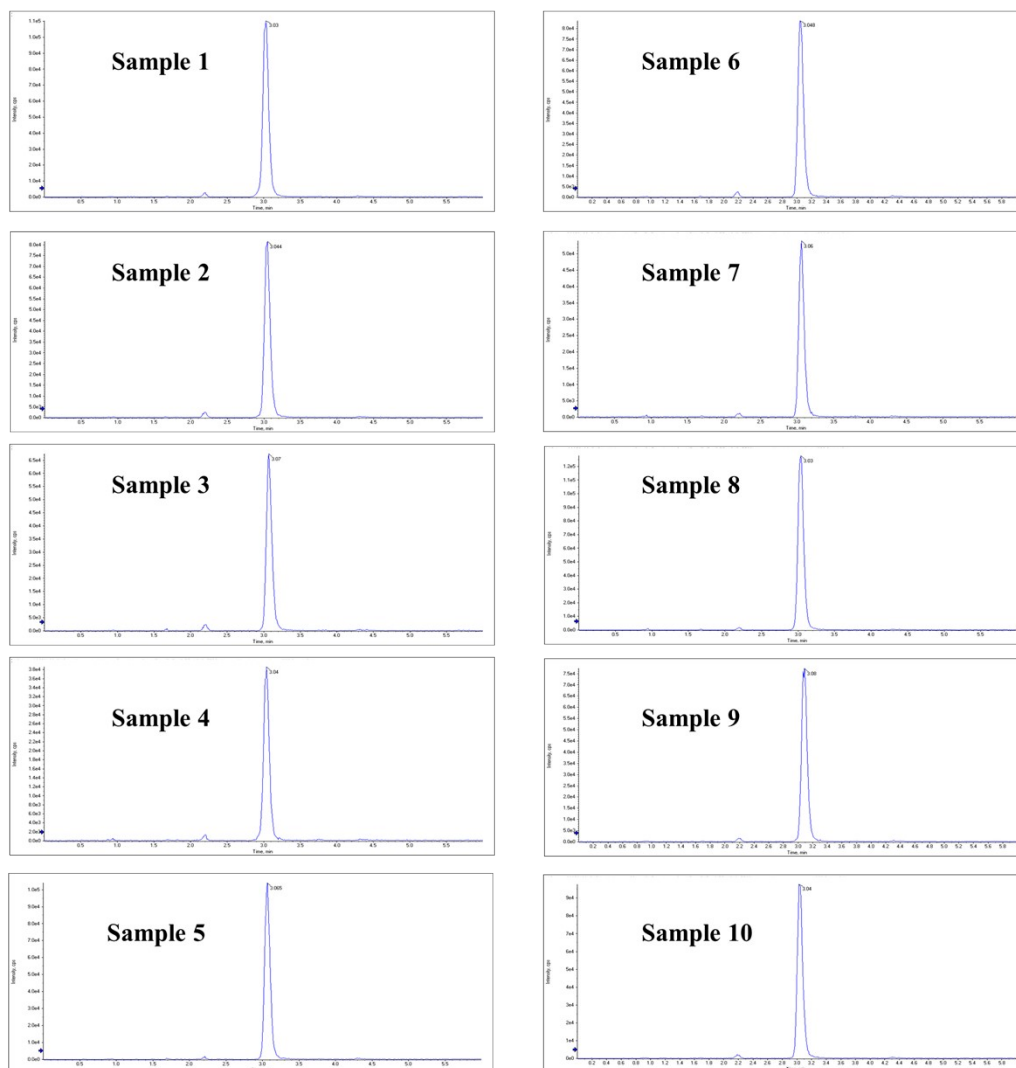


Fig. S3. (a) Analysis of KYN standard solution (100 ng/mL) by LC-MS/MS. (b) Analysis of positive sample (1-10).

Table S1. Determination of inhibition rate in mice.

Mouse No.	Inhibition rate (%) (200 ng/mL)
1	45%
2	35%
3	58%
4	39%
5	45%
6	28%
7	31%
8	28%
9	53%
10	42%

Note: The concentration of coating antigen (KYN-EDC-OVA) for the determination of inhibition rate was 0.1 µg/mL with a 27,000-fold dilution of serum.

Table S2. The analysis conditions of LC-MS/MS analysis.

Instrument conditions			
Chromatographic column	Waters HSS T3 column (1.8 μ m, 2.1 $\times$ 100 mm)		
Column temperature	40 $^{\circ}$ C		
Injection volume	2 μ L		
Flow rate	0.25 mL/min		
Mobile Phase	A: 5 mM ammonium acetate water		
	B: Acetonitrile		
	Time (min)	Percentage	Percentage
		A (%)	B (%)
Gradient Profile	0	95	80
	2	95	80
	4	5	99
	6	5	99
	6.1	95	80
	9	95	80

Table S3. The stability of CGCA strips.

Spiked level (ng/mL)	10 days	30days	180days
0	— — —	— — —	— — —
500	± ± ±	± ± ±	± ± ±
1000	± ± ±	± ± ±	± ± ±
2000	+ + +	+ + +	+ + +

—: negative; ±: weakly positive; +: positive

Table S4. Compared with other method.

Method	LOD	Reference
CES-MS/MS	250 nM (plasma)	1
LC-QTOF/MS	0.21-1.65 µg/g (infant formula)	2
HPLC	0.08 µM (human saliva)	3
LC-MS/MS	LLOQ: 0.1µg/mL (human saliva)	4
CGCA strip	48.46 ng/mL (human plasma)	This work

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