

Supporting information:

Supplemental Table 1 Matrix interference test of the sBHMT ELISA.

Sample	Before spike	After Spike(plus 12.5ng/ml)	
	sBHMT(ng/ml)	rBHMT(ng/ml)	Recovery(%)
1	<LLOQ	9.97	79.8
2	<LLOQ	12.00	94.1
3	<LLOQ	7.05	56.4
4	<LLOQ	9.90	79.2
5	<LLOQ	9.97	77.2
6	<LLOQ	9.07	72.6
7	<LLOQ	11.25	89.8
8	<LLOQ	10.74	85.4
9	<LLOQ	13.15	105.3
10	<LLOQ	10.03	80.2
11	<LLOQ	10.21	78.3
12	<LLOQ	14.81	114.2
13	2.69	10.14	73.2
14	1.87	14.29	106.4

Accuracy of the sBHMT ELISA. Spike-recovery assays were used to determine the accuracy and precision of the immunoassay. Sera from 14 different patients (25ul) were spiked with 25ul of 25 ng/ml of rBHMT. The Recovery (%) was measured for each individual. Mean recovery was 85.2%±15.5%.

Supplemental Table 2 Intra-assay variability of the BHMT ELISA

BHMT(ng/ml)	Mean	SD	CV %	Recovery %
10	8.66	0.53	6.11	86.61
20	17.38	0.63	3.63	86.92
40	37.00	1.14	3.07	92.51

Intra-assay variability is shown to indicate the precision of the sBHMT. Nine replicates of test samples containing 10 ng/ml, 20 ng/ml and 40 ng/ml concentrations of rhBHMT in sera of health group were run on a single plate. Average calculated concentrations and percentage of coefficient of variation (% CV) are shown for each concentration (n=9). SD=standard deviation.

Supplemental Table 3 Inter-assay variability of the BHMT ELISA

BHMT (ng/ml)	Mean	SD	CV %	Recovery %
100	100.63	6.62	6.58	100.63
50	48.34	7.44	15.39	96.67
10	9.73	1.27	13.08	97.25

Inter-assay variability is shown with nine replicates of test samples containing 10 ng/ml, 50 ng/ml and 100 ng/ml concentrations of rhBHMT on a different plate. Average calculated concentrations and percentage of coefficient of variation (% CV) are shown for each concentration (n=9). Recovery (%) is the difference between detected and theoretical concentration. SD=standard deviation.

Supplemental Table 4 The kind of acute liver injury (ALI)

Type of drugs	Number
Paraquat	62
Dichlorvos	15
Rodenticide	5
Toadstool	7
Organophosphorus	13
Other pesticide	2
Medical drug	9

Supplemental Table 5 The BHMT and ALT value of the five individuals

ID	ALT (IU/L)	BHMT (ng/ml)
A1	25	55.13
A2	591	7556.32
A3	898	7151.27
A4	722	2432.64
A5	585	1411.02
A6	427	1020.62
A7	311	420.32

ID	ALT (IU/L)	BHMT (ng/ml)
B1	32	28.27
B2	27	12.78
B3	122	767.28
B4	411	2883.38
B5	467	1054.98
B6	419	366.74
B7	293	513.11
B8	213	328.48
B9	175	351.65

ID	ALT(IU/L)	BHMT (ng/ml)
C1	14	13.48
C2	270	4210.96
C3	302	2388.45

C4	380	3613.39
C5	810	6126.72
C6	1082	14063.39
C7	1180	11947.55
C8	1053	8678.79
C9	596	2809.49
C10	452	1306.64
C11	286	219.48
C12	159	337.72
C13	111	5.29
C14	35	2.53
C15	915	5941.24

ID	ALT (IU/L)	BHMT (ng/ml)
D1	13	5.76
D2	10	3.74
D3	20	49.56
D4	231	1300.66
D5	228	347.64
D6	185	114.79
D7	150	57.50

ID	ALT (IU/L)	BHMT (ng/ml)
E1	17	2.11
E2	13	2.32
E3	44	72.86
E4	74	55.94
E5	99	81.34
E6	528	3931.13
E7	399	276.46
E8	307	107.56
E9	269	85.23
E10	232	71.70
E11	213	52.31
E12	182	4.28
E13	132	15.42
E14	104	10.32
E15	83	1.61