

Supplement 1. Absolute recovery of levetiracetam (LEV), pentylenetetrazole (PTZ), pilocarpine (PIL), zonisamide (ZNS) and lamotrigine (LTG) from rat plasma and brain matrices ($n = 5$).

Analyte	Nominal concentration ($\mu\text{g mL}^{-1}$)	Absolute recovery (%) ^a	CV (%)
<i>Plasma</i>			
LEV	1.2	53.95 ± 2.27	4.20
	50	57.21 ± 5.58	9.76
	90	55.59 ± 2.09	3.76
PTZ	6	52.97 ± 7.88	14.87
	50	69.35 ± 10.29	14.84
	90	72.28 ± 2.72	3.76
PIL	2.25	86.95 ± 8.75	10.06
	50	93.91 ± 5.80	6.18
	90	91.48 ± 7.35	8.04
ZNS	0.45	77.31 ± 9.90	12.81
	50	90.14 ± 4.31	4.78
	90	87.24 ± 3.99	4.57
LTG	0.9	67.10 ± 9.06	13.50
	25	85.08 ± 5.40	6.35
	45	81.11 ± 5.62	6.92
<i>Brain</i>			
LEV	1.2	48.57 ± 1.65	3.41
	50	52.02 ± 3.17	6.09
	90	52.19 ± 5.05	9.68
PTZ	6	60.20 ± 13.83	13.83
	50	64.35 ± 5.83	5.83
	90	71.36 ± 13.85	13.85
PIL	2.25	85.61 ± 5.52	6.45
	50	89.40 ± 4.52	5.05
	90	86.43 ± 3.40	3.93
ZNS	0.45	84.06 ± 9.10	10.82
	50	84.67 ± 4.25	5.02
	90	78.24 ± 11.25	14.38
LTG	0.9	77.63 ± 3.61	4.65
	25	80.99 ± 6.25	7.72
	45	76.79 ± 11.44	14.89

^a Mean $\pm$ standard deviation, $n = 5$.