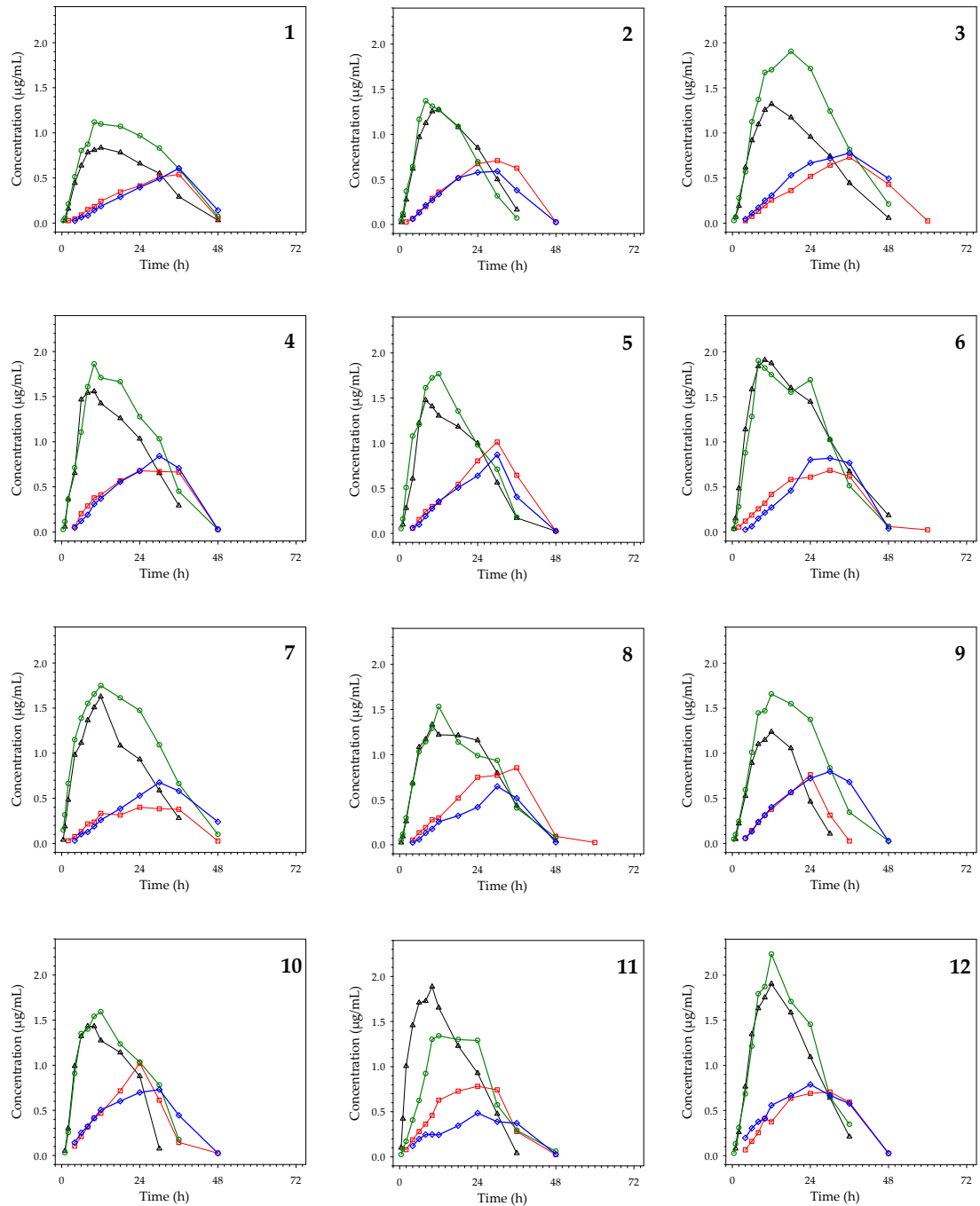


Supplementary Figure S1. Representative HPLC chromatogram of plasma sample fortified with ABZ (1 $\mu\text{g/mL}$), ABZSO (1 $\mu\text{g/mL}$), ABZSO₂ (1 $\mu\text{g/mL}$), and IS (1 $\mu\text{g/mL}$).



Supplementary Figure S2. Individual plasma concentrations of ABZSO (Δ oral ABZ; \circ oral ABZ + intramuscular MEN) and ABZSO₂ (\square oral ABZ; \diamond oral ABZ + intramuscular MEN) obtained after oral ABZ administration (5 mg/kg) and oral ABZ (5 mg/kg) + intramuscular MEN (10 mg/kg) administration to 12 sheep.

Supplementary Table S1. Data from linear regression analysis of calibration curves.

Characteristic	ABZ	ABZSO	ABZSO ₂
Curve 1 (R ²)	y = 0.645 x + 0.014 (0.995)	y = 1.030 x + 0.041 (0.999)	y = 0.554 x + 0.006 (0.999)
Curve 2 (R ²)	y = 1.378 x + 0.013 (0.999)	y = 1.849 x + 0.009 (0.999)	y = 1.288 x – 0.007 (0.999)
Curve 3 (R ²)	y = 1.408 x + 0.012 (0.999)	y = 1.923 x + 0.016 (0.999)	y = 1.356 x – 0.003 (0.999)
LLOQ (µg/mL)	0.025	0.025	0.025
LOD (µg/mL)	0.001	0.002	0.007
Recovery (%) (Mean ± SD)	95.4 ± 7.2	100.1 ± 6.4	99.5 ± 7.2

Supplementary Table S2. Within-run and between-run accuracy for the samples processed.

Compound	Nominal concentration (µg/mL)	Accuracy (% from nominal concentration)		Precision (% CV)	
		Within-run (range)	Between-run	Within-run (range)	Between-run
ABZ	0.025	84.7-107.2	95.7	4.3–10.4	6.8
	0.075	86.0-96.4	92.6	2.1-4.2	3.1
	1	100.4-106.0	102.3	1.9-2.4	2.1
	1.5	92.0-110.3	99.9	2.1-5.9	3.9
ABZSO	0.025	86.1-115.9	99.0	4.4-8.6	5.9
	0.075	89.3-103.2	95.5	3.4-5.8	4.7
	1	97.9-112.9	103.0	2.1-6.4	3.8
	1.5	98.9-112.8	103.5	2.8–6.5	4.1
ABZSO ₂	0.025	87.0-111.6	99.9	3.8-6.6	5.1
	0.075	97.3-102.8	99.9	0.7–1.6	1.3
	1	87.5-110.5	101.2	4.1-6.2	4.9
	1.5	87.0-112.2	99.8	1.3–5.1	3.8

Supplementary Table S3. Individual and mean \pm SD plasma concentrations of ABZSO obtained after oral ABZ administration (5 mg/kg) to 12 sheep.

Time (h)	Concentrations ($\mu\text{g/mL}$)												Mean \pm SD
	1	2	3	4	5	6	7	8	9	10	11	12	
0.25													
0.5		0.025				0.036	0.040	0.025			0.101		0.019 \pm 0.030
1	0.027	0.100	0.071	0.059	0.097	0.151	0.186	0.092	0.048	0.050	0.423	0.077	0.115 \pm 0.107
2	0.159	0.276	0.191	0.367	0.280	0.484	0.482	0.261	0.221	0.300	1.007	0.259	0.357 \pm 0.229
4	0.444	0.618	0.618	0.652	0.606	1.138	0.982	0.686	0.527	0.992	1.459	0.764	0.790 \pm 0.295
6	0.637	0.968	0.918	1.468	1.222	1.582	1.114	1.082	0.894	1.321	1.709	1.345	1.188 \pm 0.313
8	0.784	1.123	1.095	1.543	1.477	1.838	1.365	1.169	1.103	1.432	1.728	1.634	1.358 \pm 0.309
10	0.809	1.253	1.257	1.558	1.407	1.908	1.507	1.331	1.148	1.431	1.887	1.753	1.437 \pm 0.316
12	0.834	1.270	1.321	1.426	1.304	1.871	1.628	1.220	1.239	1.274	1.654	1.904	1.412 \pm 0.304
18	0.783	1.079	1.171	1.260	1.183	1.600	1.084	1.212	1.057	1.141	1.230	1.586	1.199 \pm 0.222
24	0.660	0.851	0.958	1.034	0.999	1.446	0.931	1.158	0.464	0.879	0.927	1.093	0.950 \pm 0.244
30	0.551	0.500	0.743	0.651	0.562	1.026	0.586	0.795	0.109	0.076	0.477	0.640	0.560 \pm 0.265
36	0.291	0.164	0.443	0.293	0.170	0.673	0.281	0.434			0.041	0.210	0.250 \pm 0.200
48	0.031		0.057		0.025	0.186		0.047					0.029 \pm 0.054
60													0.053 \pm 0.061
72													

SD: standard deviation.

Supplementary Table S4. Individual and mean \pm SD plasma concentrations of ABZSO obtained after oral ABZ (5 mg/kg) + intramuscular MEN (10 mg/kg) administration to 12 sheep.

Time (h)	Concentrations ($\mu\text{g/mL}$)												Mean \pm SD
	1	2	3	4	5	6	7	8	9	10	11	12	
0.25													
0.5	0.025	0.047	0.027	0.026	0.052	0.035	0.147	0.047	0.045		0.023	0.023	0.042 \pm 0.036
1	0.052	0.118	0.066	0.112	0.157	0.119	0.315	0.115	0.097	0.030	0.087	0.128	0.116 \pm 0.072
2	0.209	0.368	0.278	0.355	0.506	0.279	0.662	0.296	0.243	0.252	0.171	0.307	0.327 \pm 0.136
4	0.512	0.640	0.569	0.711	1.077	0.876	1.148	0.676	0.594	0.908	0.406	0.682	0.733 \pm 0.226
6	0.802	1.164	1.124	1.104	1.207	1.279	1.386	1.031	1.009	1.350	0.623	1.211	1.107 \pm 0.220
8	0.871	1.370	1.370	1.609	1.614	1.900	1.550	1.141	1.446	1.399	0.922	1.792	1.415 \pm 0.315
10	1.119	1.310	1.670	1.862	1.722	1.817	1.654	1.290	1.469	1.541	1.302	1.871	1.552 \pm 0.253
12	1.097	1.271	1.700	1.709	1.768	1.744	1.749	1.532	1.657	1.592	1.341	2.233	1.616 \pm 0.290
18	1.070	1.086	1.904	1.664	1.354	1.549	1.612	1.137	1.549	1.235	1.300	1.707	1.431 \pm 0.272
24	0.968	0.693	1.714	1.277	0.978	1.687	1.472	0.987	1.374	1.033	1.290	1.454	1.244 \pm 0.315
30	0.830	0.315	1.240	1.031	0.709	1.023	1.092	0.933	0.837	0.780	0.575	0.649	0.835 \pm 0.253
36	0.600	0.070	0.816	0.449	0.178	0.512	0.662	0.407	0.345	0.176	0.294	0.345	0.404 \pm 0.218
48	0.073		0.211	0.025		0.061	0.098	0.081	0.029		0.061		
60													
72													

SD: standard deviation.

Supplementary Table S5. Individual and mean \pm SD plasma concentrations of ABZSO₂ obtained after oral ABZ administration (5 mg/kg) to 12 sheep.

Time (h)	Concentrations ($\mu\text{g/mL}$)												Mean \pm SD
	1	2	3	4	5	6	7	8	9	10	11	12	
0.25													
0.5													
1													
2	0.027	0.027				0.056	0.029				0.079		0.018 \pm 0.025
4	0.046	0.066	0.027	0.057	0.055	0.121	0.076	0.051	0.058	0.103	0.188	0.062	0.076 \pm 0.042
6	0.090	0.138	0.075	0.202	0.153	0.188	0.131	0.135	0.145	0.209	0.280	0.158	0.159 \pm 0.053
8	0.150	0.199	0.132	0.288	0.240	0.257	0.216	0.190	0.232	0.316	0.363	0.254	0.236 \pm 0.063
10	0.182	0.290	0.196	0.378	0.299	0.319	0.235	0.278	0.312	0.414	0.460	0.412	0.315 \pm 0.084
12	0.242	0.359	0.256	0.411	0.343	0.418	0.333	0.297	0.379	0.468	0.628	0.374	0.376 \pm 0.099
18	0.345	0.514	0.363	0.568	0.544	0.583	0.314	0.517	0.563	0.716	0.728	0.637	0.533 \pm 0.129
24	0.413	0.673	0.518	0.678	0.803	0.608	0.400	0.749	0.762	1.022	0.783	0.689	0.675 \pm 0.167
30	0.510	0.707	0.643	0.669	1.012	0.683	0.383	0.770	0.314	0.613	0.743	0.705	0.646 \pm 0.175
36	0.538	0.625	0.732	0.664	0.644	0.618	0.378	0.854	0.027	0.144	0.280	0.593	0.508 \pm 0.238
48	0.052	0.027	0.431	0.028	0.027	0.061	0.027	0.093		0.025	0.025	0.025	0.068 \pm 0.112
60			0.025			0.025		0.025					0.006 \pm 0.011
72													

SD: standard deviation.

Supplementary Table S6. Individual and mean \pm SD plasma concentrations of ABZSO₂ obtained after oral ABZ (5 mg/kg) + intramuscular MEN (10 mg/kg) administration to 12 sheep.

Time (h)	Concentrations ($\mu\text{g/mL}$)												Mean \pm SD
	1	2	3	4	5	6	7	8	9	10	11	12	
0.25													
0.5													
1													
2													
4	0.025	0.060	0.045	0.047	0.062	0.027	0.030	0.025	0.058	0.142	0.120	0.195	0.070 \pm 0.054
6	0.063	0.131	0.111	0.121	0.097	0.063	0.102	0.058	0.132	0.252	0.198	0.303	0.136 \pm 0.077
8	0.083	0.212	0.173	0.191	0.189	0.150	0.126	0.130	0.239	0.322	0.246	0.375	0.203 \pm 0.083
10	0.142	0.268	0.253	0.310	0.275	0.216	0.189	0.176	0.313	0.413	0.248	0.410	0.268 \pm 0.085
12	0.186	0.336	0.307	0.370	0.354	0.272	0.258	0.255	0.403	0.505	0.244	0.557	0.337 \pm 0.110
18	0.290	0.516	0.531	0.555	0.506	0.460	0.384	0.322	0.569	0.601	0.345	0.664	0.479 \pm 0.119
24	0.395	0.577	0.666	0.676	0.639	0.802	0.530	0.417	0.723	0.698	0.485	0.789	0.616 \pm 0.136
30	0.491	0.589	0.717	0.842	0.873	0.820	0.676	0.647	0.798	0.730	0.388	0.666	0.686 \pm 0.145
36	0.608	0.379	0.778	0.708	0.404	0.767	0.581	0.516	0.682	0.445	0.373	0.577	0.568 \pm 0.147
48	0.140	0.025	0.494	0.029	0.025	0.039	0.239	0.028	0.025	0.025	0.030	0.025	0.094 \pm 0.142
60													
72													

SD: standard deviation.