

Disposition of Radioactivity 72 Hours Following Oral Gavage Dose of Kava (Normalized to 100 mg/kg Kavalactones) Containing Tracer Levels of [¹⁴C]Kawain to Male F-344 Rats (Group 3)^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Feces CPDE	Total CPDE
8	17.7 ± 4.7	c	17.7 ± 4.7
24	46.1 ± 2.8	16.6 ± 5.1	62.7 ± 6.7
48	54.0 ± 2.9	22.9 ± 5.1	76.9 ± 5.5
72	58.0 ± 2.6	26.1 ± 7.6	84.1 ± 6.0

Distribution in Tissues (72 hours)

Tissue	ng-eq Kawain per g Tissue	Tissue/Blood Ratio	% Dose in Total Tissue
Adipose	73.1 ± 41.3	0.298 ± 0.183	0.0320 ± 0.0189
Blood	258 ± 47.3	Unity	0.0779 ± 0.0124
Brain	10.3 ± 1.65	0.0403 ± 0.00611	0.0003 ± 0.00003
Heart	68.1 ± 6.91	0.268 ± 0.0347	0.0009 ± 0.0001
Kidney	652 ± 104	2.58 ± 0.556	0.0215 ± 0.00217
Liver	1345 ± 41.8	5.35 ± 0.929	0.241 ± 0.0187
Lung	101 ± 11.2	0.396 ± 0.0467	0.0018 ± 0.00019
Muscle	27.4 ± 3.05	0.109 ± 0.0235	0.0455 ± 0.00534
Skin	164 ± 32.4	0.659 ± 0.207	0.128 ± 0.0254
Total in Tissues	–	–	0.549 ± 0.046

^aAll values expressed as mean ± standard deviation (SD) (N = 4). (+)-Kawain was administered as a constituent of kava extract (kava). The target dose was 100 mg kavalactones/kg body weight and contained tracer levels of [¹⁴C](+)-kawain. Kava extract contains ca. 40% kavalactones of which the major constituents (96%) are 5,6-dehydrokawain; 7,8-dihydrokawain; 7,8-dihydromethysticin; kawain; methysticin; and yangonin.

^bCPDE = Cumulative percent dose excreted.

^cThe first feces collection was at 24 hours (h).