

**Distribution of Radioactivity 72 Hours Following a Single Oral Gavage Administration of
158 mg/kg [¹⁴C]2,3-Butanedione to Male F-344 Rats – Study A**

Dose Recovered in Excreta, Carcass, and Tissues (%)^a

End of Collection Period (h)	Urine ^b	Cage Rinse	Feces ^b	Volatile Breath ^c	CO ₂ Breath ^c	Carcass and Tissues	Total
6	10.5 ± 3.44	–	–	0.29 ± 0.03	23.2 ± 2.38	–	34.0 ± 3.49
12	26.0 ± 1.82	–	0.65 ± 0.37	0.50 ± 0.07	43.0 ± 3.40	–	70.2 ± 2.09
18 ^b	26.0 ± 1.82	–	0.65 ± 0.37	0.59 ± 0.11	50.6 ± 2.35	–	77.9 ± 1.42
24	33.2 ± 2.91	–	1.63 ± 0.26	0.65 ± 0.13	51.7 ± 2.25	–	87.2 ± 1.16
30 ^b	33.2 ± 2.91	–	1.63 ± 0.26	0.70 ± 0.14	52.4 ± 2.23	–	87.9 ± 1.19
36 ^b	33.2 ± 2.91	–	1.63 ± 0.26	0.73 ± 0.14	52.9 ± 2.24	–	88.4 ± 1.25
48	34.0 ± 2.87	–	2.03 ± 0.22	0.78 ± 0.14	53.4 ± 2.29	–	90.2 ± 1.24
60 ^b	34.0 ± 2.87	–	2.03 ± 0.22	0.81 ± 0.13	54.0 ± 2.34	–	90.7 ± 1.23
72	34.1 ± 2.84	0.05 ± 0.03	2.25 ± 0.22	0.82 ± 0.13	54.3 ± 2.36	6.44 ± 0.71	97.9 ± 0.43

Distribution in Tissues (72 hours)^a

Tissue	µg-eq per g Tissue Mean	µg -eq per g Tissue Mean	TBR ^d Mean	TBR SD	Dose in Total Tissue (%) Mean	Dose in Total Tissue (%) SD
Adipose	16.9	8.68	2.50	1.23	0.660	0.329
Bladder	26.4	3.910	3.98	0.781	0.00488	0.00101
Blood	6.70	0.392	Unity	–	0.190	0.0103
Brain	6.710	0.245	1.00	0.0468	0.0239	0.00199
Heart	9.490	1.0	1.42	0.0942	0.0171	0.00145
Kidney	29.5	2.08	4.41	0.112	0.120	0.00671
Liver	17.7	2.05	2.64	0.153	0.405	0.0281
Lung	20.5	3.18	3.05	0.364	0.0411	0.00233
Muscle	5.170	0.384	0.771	0.0129	1.36	0.0962
Skin	24.3	2.40	3.62	0.164	2.32	0.198
Spleen	20.9	1.77	3.12	0.120	0.0228	0.00162
Testis	9.860	0.390	1.47	0.0447	0.0591	0.00230
Stomach ^e	0.420	0.069	0.0626	0.00879	0.0646	0.0102
Small intestine ^e	2.0	0.278	0.299	0.0342	0.324	0.0446
Cecum ^e	0.621	0.135	0.0925	0.0180	0.0976	0.0207
Large intestine ^e	0.750	0.072	0.112	0.108	0.115	0.0140

^a All values expressed as mean ± standard deviation (S D) (N=4). Dash indicates no sample obtained at that time point.

^b Urine and feces were collected at 6 (urine only), 12, 24, 48, and 72 hours (h).

^c Volatile and CO₂ breath traps were changed at 6, 12, 18, 24, 30, 36, 48, 60, and 72 h.

^d TBR = tissue/blood ratio

^e Includes contents