

Disposition of Radioactivity 24 Hours Following Intravenous Bolus Administration of 4 mg/kg [¹⁴C]DTBBA to Male Harlan Sprague Dawley Rats (Group C-2)^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	Volatile Organics CPDE	CO ₂ CPDE	GI Content	Total CPDE
4	31.3 ± 6.9	14.8 ± 7.1	–	0.00950 ± 0.00534	0.0956 ± 0.0365	–	46.3
8	45.5 ± 6.4	18.8 ± 7.4	–	0.0275 ± 0.0151	0.204 ± 0.119	–	64.5
12	49.0 ± 6.7	19.9 ± 7.4	–	0.0420 ± 0.0243	0.282 ± 0.150	–	69.3
24 ^c	52.2 ± 5.8	20.9 ± 7.0	15.0 ± 5.7	0.0630 ± 0.0413	0.447 ± 0.275	1.13 ± 0.55	89.9

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR ^e Mean	TBR SD	Percent Recovery Mean	Percent Recovery SD
Blood ^d	0.0710	0.0152	unity	–	0.0617	0.0161
Adipose ^d	0.0414	0.0153	0.581	0.172	0.0344	0.0141
Muscle ^d	0.0257	0.0134	0.353	0.146	0.124	0.069
Skin ^d	0.108	0.052	1.50	0.59	0.243	0.124
Brain	0.0142	0.0062	0.195	0.064	0.00115	0.00056
Heart	0.0314	0.0050	0.446	0.042	0.00122	0.00025
Kidneys	0.259	0.066	3.64	0.48	0.0197	0.0050
Liver	0.243	0.059	3.44	0.60	0.119	0.030
Lung	20.4	29.7	300	440	1.15	1.69
Spleen	0.527	0.167	7.94	3.52	0.0149	0.0033
Adrenals	0.109	0.054	1.55	0.79	0.00019	0.00006
Thymus	0.0170	0.0072	0.233	0.051	0.00032	0.00012
Thyroid	0.322	0.140	4.44	1.61	0.00095	0.00033
Urinary Bladder	0.519	0.394	6.90	4.13	0.00114	0.00085
Pancreas	0.160	0.250	2.29	3.60	0.00495	0.00618
Testes	0.0216	0.0130	0.306	0.191	0.00335	0.00206
Cecum	0.579	0.297	7.84	2.75	0.0158	0.0114
Large Intestine	0.258	0.214	3.37	2.16	0.0140	0.0125
Small Intestine	0.336	0.132	4.63	1.16	0.0522	0.0260
Stomach	0.126	0.084	1.84	1.34	0.00691	0.00445
Tail	0.631	0.905	7.40	8.93	1.62	2.64

Disposition Summary–Dose Recovered (%)

Sample	Percent Recovered Mean	Percent Recovered SD
Urine + Cage Rinse	73.1	7.0
Urine	52.2	5.8
Cage Rinse	20.9	7.0
Feces	15.0	5.7
Volatile Organics	0.0630	0.0413
CO ₂	0.447	0.275
GI Content	1.13	0.55
Carcass	0.0767	0.1083
Tissues	3.56	2.68
Total Recovered	93.5	5.8

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 4 mg DTBBA/kg. The actual dose delivered was 3.91 ± 0.38 mg/kg (43.7 ± 2.6 μCi).

^bCPDE = Cumulative percent dose excreted

^c24 hour (h) urine collection included urine present in the urinary bladder at study termination.

^dTissue weights for the dispersed tissues were calculated using the following percentages of body weight: adipose 7.0%, blood 7.4%, muscle 40.4%, and skin 19% (International Life Sciences Institute, 1994).

^eTBR = tissue to blood ratio