

Disposition of Radioactivity 24 Hours Following Oral Gavage Administration of 40 mg/kg [¹⁴C]DTBBA to Male Harlan Sprague Dawley Rats (Group A)^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	GI Content	Total CPDE
4	10.4 ± 4.9	7.98 ± 1.50	–	–	18.4
8	24.5 ± 5.0	12.2 ± 2.34	–	–	36.7
12	30.8 ± 7.3	14.6 ± 1.76	–	–	45.4
24 ^c	34.8 ± 8.0	16.5 ± 2.17	24.3 ± 8.4	2.34 ± 0.93	78.0

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	0.485	0.209	unity	–	0.0417	0.0169
Adipose ^d	0.653	0.403	1.36	0.60	0.0530	0.0313
Muscle ^d	0.190	0.047	0.447	0.219	0.0890	0.0189
Skin ^d	0.620	0.211	1.47	0.74	0.136	0.040
Brain	0.0714	0.0189	0.177	0.106	0.00051	0.00017
Heart	0.247	0.062	0.557	0.168	0.00087	0.00015
Kidneys	2.18	1.00	4.71	1.30	0.0168	0.0069
Liver	1.56	0.39	3.62	1.41	0.0758	0.0161
Lung	0.530	0.155	1.25	0.60	0.00260	0.00074
Spleen	0.326	0.084	0.779	0.380	0.00082	0.00029
Adrenals	1.61	1.66	4.77	6.58	0.00026	0.00034
Thymus	0.125	0.051	0.310	0.225	0.00037	0.00020
Thyroid	6.94	3.72	17.3	14.5	0.00007	0.00006
Urinary Bladder	9.11	10.56	16.3	17.8	0.00163	0.00169
Pancreas	0.560	0.283	1.23	0.47	0.00144	0.00106
Testes	0.121	0.025	0.291	0.152	0.00164	0.00056
Cecum	10.2	2.6	24.1	10.8	0.0301	0.0105
Large Intestine	5.82	0.92	13.7	5.0	0.0303	0.0062
Small Intestine	4.87	1.17	11.2	3.9	0.104	0.032
Stomach	4.22	1.79	11.0	9.0	0.0262	0.0118

Disposition Summary–Dose Recovered (%)

Sample	Percent Recovered Mean	Percent Recovered SD
Urine + Cage Rinse	51.3	6.7
Urine	34.8	8.0
Cage Rinse	16.5	2.17
Feces	24.3	8.4
GI Content	2.34	0.93
Carcass	0.151	0.127
Tissues	0.763	0.102
Total Recovered	78.8	5.7

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 40 mg DTBBA/kg. The actual dose delivered was 38.2 ± 1.1 mg/kg (44.8 ± 1.3 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