

**Disposition of Radioactivity 72 h Following Oral Gavage Administration of 100 mg/kg
[¹⁴C]HMB 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	Volatile Organics CPDE	CO ₂ CPDE	GI Content	Total
4	3.85 ± 4.05	2.15 ± 2.92	—	0.551 ± 0.0157	0.481 ± 0.094	—	6.54
8	18.5 ± 3.4	5.03 ± 3.46	—	0.0867 ± 0.0165	0.701 ± 0.105	—	24.3
12	30.5 ± 3.7	7.60 ± 3.71	—	0.108 ± 0.021	0.913 ± 0.111	—	39.2
24	42.7 ± 3.5	9.07 ± 3.41	30.7 ± 11.5	0.133 ± 0.023	1.14 ± 0.12	—	74.3
48	47.1 ± 5.1	9.50 ± 3.41	37.6 ± 8.4	—	—	—	95.5
72 ^c	47.5 ± 5.3	9.83 ± 3.34	38.6 ± 8.2	—	—	0.462 ± 0.537	98.3

Disposition in Tissues (72 h)

Tissue	nmol-eq HMB Per g Tissue	Tissue/Blood Ratio	Recovery (%)
Blood ^d	2.36 ± 0.47	unity	0.0404 ± 0.0081
Adipose ^d	2.23 ± 0.57	0.943 ± 0.112	0.0361 ± 0.0093
Muscle ^d	1.70 ± 0.28	0.726 ± 0.043	0.159 ± 0.026
Skin ^d	3.20 ± 0.63	1.37 ± 0.22	0.141 ± 0.027
Brain	0.710 ± 0.148	0.304 ± 0.055	0.00111 ± 0.00024
Heart	0.991 ± 0.360	0.412 ± 0.075	0.00073 ± 0.00033
Kidneys	5.04 ± 1.65	2.09 ± 0.30	0.00746 ± 0.00246
Liver	8.13 ± 2.31	3.47 ± 0.75	0.0625 ± 0.0141
Lung	1.19 ± 0.45	0.493 ± 0.102	0.00125 ± 0.00044
Spleen	0.970 ± 0.232	0.414 ± 0.087	0.00048 ± 0.00009
Adrenals	4.71 ± 1.73	1.94 ± 0.42	0.00014 ± 0.00003
Thymus	1.06 ± 0.14	0.462 ± 0.103	0.00039 ± 0.00005
Thyroid	10.5 ± 4.9	4.27 ± 1.48	0.00007 ± 0.00003
Urinary Bladder	11.1 ± 11.8	4.28 ± 3.86	0.00063 ± 0.00058
Pancreas	1.16 ± 0.15	0.477 ± 0.148	0.00090 ± 0.00055
Testes	0.904 ± 0.348	0.379 ± 0.092	0.00280 ± 0.00124
Cecum	8.41 ± 4.89	3.40 ± 1.38	0.00323 ± 0.00188
Large Intestine	7.73 ± 8.00	2.98 ± 2.53	0.00683 ± 0.00660
Small Intestine	3.93 ± 1.10	1.68 ± 0.44	0.0141 ± 0.0034
Stomach	2.51 ± 1.60	1.01 ± 0.52	0.00268 ± 0.00179

Disposition Summary (Dose Recovered [%])

Sample	Mean ± SD
Urine + Cage Rinse	57.6 ± 4.0
Urine	47.5 ± 5.3
Cage Rinse	9.83 ± 3.34
Feces	38.6 ± 8.2
VOCs	0.133 ± 0.023
CO ₂	1.14 ± 0.12
GI Content	0.462 ± 0.537
Carcass	1.6 ± 0.46
Tissues	0.48 ± 0.08
Total Recovered	99.9 ± 4.7

^aAll values expressed as mean ± SD (N = 5). The actual dose delivered was 102 ± 1 mg/kg (42.9 ± 0.3 µCi).^bCPDE = Cumulative percent dose excreted.^c72 h urine collection includes 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).