

**Disposition of Radioactivity 72 Hours Following Dermal Application of 10 mg/kg [¹⁴C]HMB,
Formulated in Ethanol:Coconut Oil (1:1, v:v), to Male Harlan Sprague Dawley Rats (Group C)^a**

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	GI Content	Total
4	0.496 ± 0.382	0.340 ± 0.228	—	—	0.836
8	2.51 ± 0.54	1.37 ± 0.50	—	—	3.88
12	5.51 ± 0.65	2.58 ± 0.62	—	—	8.09
24	14.3 ± 2.0	4.76 ± 0.98	6.58 ± 4.19	—	25.7
48	24.4 ± 2.9	7.48 ± 1.64	16.5 ± 4.0	—	48.4
72c	28.7 ± 3.5	8.38 ± 1.79	21.8 ± 5.5	2.50 ± 0.65	64.0

Disposition in Tissues

Tissue	nmol-eq HMB per g Tissue	Tissue/Blood Ratio	Recovery (%)
Blood ^d	0.407 ± 0.136	unity	0.0662 ± 0.0262
Adipose ^d	1.92 ± 0.35	5.29 ± 2.32	0.289 ± 0.042
Muscle ^d	0.416 ± 0.314	1.08 ± 0.73	0.372 ± 0.303
Skin ^d	16.7 ± 7.6	48.7 ± 30.7	6.72 ± 2.71
Brain	0.0435 ± 0.0266	0.117 ± 0.082	0.00063 ± 0.00036
Heart	0.143 ± 0.051	0.358 ± 0.114	0.00114 ± 0.00042
Kidneys	1.53 ± 0.24	4.00 ± 0.96	0.0224 ± 0.0045
Liver	1.25 ± 0.23	3.19 ± 0.49	0.107 ± 0.025
Lung	0.198 ± 0.051	0.500 ± 0.075	0.00213 ± 0.00075
Spleen	0.223 ± 0.145	0.550 ± 0.305	0.00122 ± 0.00068
Adrenals	0.697 ± 0.209	1.92 ± 0.96	0.00028 ± 0.00006
Thymus	0.0891 ± 0.0109	0.244 ± 0.098	0.00032 ± 0.00005
Thyroid	0.323 ± 0.235	0.904 ± 0.758	0.00014 ± 0.00005
Urinary Bladder	12.9 ± 12.4	37.0 ± 41.4	0.00668 ± 0.00684
Pancreas	0.695 ± 0.197	1.91 ± 0.94	0.00570 ± 0.00234
Testes	0.108 ± 0.057	0.305 ± 0.213	0.00299 ± 0.00149
Cecum	6.98 ± 1.70	19.6 ± 9.8	0.0362 ± 0.0035
Large Intestine	2.78 ± 1.17	8.13 ± 5.04	0.0374 ± 0.0142
Small Intestine	7.70 ± 1.37	20.9 ± 8.7	0.293 ± 0.052
Stomach	1.11 ± 0.24	2.96 ± 1.00	0.0127 ± 0.0015

Disposition Summary

Sample	% Dose Recovered
Total Unabsorbed Dose	4.41 ± 1.81
Applicator	2.64 ± 0.97
Tape/Glue	0.934 ± 0.292
Dose Site Swipes	0.838 ± 0.850
Total Dose Site Skin	0.215 ± 0.089
Total Absorbed Dose	72.5 ± 6.0
Urine + Cage Rinse	38.4 ± 4.6
Urine	28.7 ± 3.5
Cage Rinse	8.38 ± 1.79
Feces	21.8 ± 5.5
GI Content	2.50 ± 0.65
Carcass	0.370 ± 0.760
Tissues	8.19 ± 2.83
Total Recovered	76.9 ± 6.7

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The actual dose delivered was 10.9 ± 0.8 mg/kg (49.8 ± 3.5 µCi).

^bCPDE = Cumulative percent dose excreted

^c72 hour (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).