

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

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	GI Content	Total CPDE
4	1.12 ± 0.49	1.08 ± 0.74	-	-	2.41
8	3.42 ± 1.26	2.03 ± 1.44	-	-	5.85
12	7.38 ± 1.60	4.36 ± 1.94	-	-	12.3
24	15.4 ± 1.9	5.41 ± 1.90	8.44 ± 1.74	-	30.0
48	21.9 ± 2.2	6.08 ± 1.82	17.3 ± 3.9	-	46.2
72 ^c	24.1 ± 2.6	6.93 ± 1.86	21.3 ± 4.4	0.734 ± 0.167	49.2

Distribution in Tissues

Tissue	nmol-eq HMB per g Tissue	Tissue/Blood Ratio	Recovery (%)
Blood ^d	0.0194 ± 0.0073	unity	0.0355 ± 0.0147
Adipose ^d	0.0714 ± 0.0203	3.97 ± 1.62	0.122 ± 0.035
Muscle ^d	0.0155 ± 0.0099	0.764 ± 0.249	0.156 ± 0.105
Skin ^d	0.757 ± 0.665	35.2 ± 16.7	3.59 ± 3.29
Brain	0.00498 ± 0.00106	0.271 ± 0.075	0.000769 ± 0.000154
Heart	0.00917 ± 0.00268	0.484 ± 0.062	0.000718 ± 0.000231
Kidneys	0.0908 ± 0.0349	4.95 ± 2.32	0.0152 ± 0.0054
Liver	0.0552 ± 0.0172	2.92 ± 0.68	0.0582 ± 0.0196
Lung	0.0158 ± 0.0114	0.761 ± 0.263	0.00169 ± 0.00132
Spleen	0.00793 ± 0.00178	0.441 ± 0.155	0.000470 ± 0.000155
Adrenals	0.0291 ± 0.0102	1.53 ± 0.30	0.000187 ± 0.000070
Thymus	0.00976 ± 0.00366	0.549 ± 0.264	0.000395 ± 0.000143
Thyroid	0.0709 ± 0.0387	3.74 ± 2.09	0.0000770 ± 0.0000269
Urinary Bladder	0.340 ± 0.179	19.6 ± 11.4	0.00134 ± 0.00052
Pancreas	0.0224 ± 0.0127	1.28 ± 0.87	0.00145 ± 0.00086
Testes	0.00811 ± 0.00198	0.448 ± 0.155	0.00230 ± 0.00043
Cecum	0.163 ± 0.059	9.19 ± 4.49	0.00592 ± 0.00161
Large Intestine	0.0712 ± 0.0252	4.06 ± 2.04	0.00550 ± 0.00116
Small Intestine	0.212 ± 0.084	11.4 ± 4.7	0.0646 ± 0.0273
Stomach	0.0277 ± 0.0148	1.48 ± 0.84	0.00261 ± 0.00147

Disposition Summary

Sample	% Dose Recovered
Total Unabsorbed Dose	22.4 ± 2.8
Applicator	14.6 ± 2.7
Tape / Glue	6.86 ± 3.69
Dose Site Swipes	0.888 ± 0.499
Total Dose Site Skin	0.491 ± 0.297
Total Absorbed Dose	53.4 ± 4.7
Urine + Cage Rinse	31.0 ± 3.1
Urine	24.1 ± 2.6
Cage Rinse	6.93 ± 1.86
Feces	21.3 ± 4.4
GI Content	0.734 ± 0.167
Carcass	0.0966 ± 0.1866
Tissues	4.16 ± 3.40
Total Recovered	76.3 ± 5.4

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 1 mg HMB/kg. The actual dose delivered was 0.980 ± 0.039 mg/kg (52.1 ± 2.1 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).