

**Disposition of Radioactivity 72 Hours Following Dermal Application of 10 mg/kg [¹⁴C]HMB,
Formulated in Acetone, to Male B6C3F₁/N Mice (Study N)^a**

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	GI Content	Total CPDE
4	0.100 ± 0.160	2.46 ± 2.05	-	-	3.36
8	0.197 ± 0.240	3.60 ± 2.87	-	-	5.26
12	0.328 ± 0.316	8.22 ± 2.15	-	-	10.7
24	2.40 ± 3.00	11.22 ± 1.76	19.9 ± 4.5	-	36.6
48	2.56 ± 3.02	12.49 ± 2.15	26.5 ± 4.2	-	45.4
72 ^c	2.63 ± 3.01	16.16 ± 4.61	29.5 ± 4.1	0.569 ± 0.211	53.9

Distribution in Tissues

Tissue	nmol-eq HMB per g Tissue	Tissue/Blood Ratio	Recovery (%)
Blood ^d	1.57 ± 1.21	unity	0.185 ± 0.143
Adipose ^d	1.37 ± 0.93	2.16 ± 2.96	0.227 ± 0.148
Muscle ^d	0.558 ± 0.277	2.45 ± 4.89	0.512 ± 0.254
Skin ^d	5.347 ± 5.913	40.4 ± 86.4	2.09 ± 2.30
Brain	0.486 ± 0.097	1.40 ± 2.32	0.0182 ± 0.0036
Heart	1.55 ± 0.46	4.67 ± 7.59	0.0161 ± 0.0037
Kidneys	0.717 ± 0.159	2.07 ± 3.24	0.0225 ± 0.0042
Liver	0.635 ± 0.061	1.78 ± 2.77	0.0780 ± 0.0097
Lung	1.30 ± 0.25	3.32 ± 5.12	0.0179 ± 0.0040
Spleen	0.533 ± 0.074	1.92 ± 3.34	0.00244 ± 0.00062
Adrenals	7.60 ± 9.32	8.44 ± 9.64	0.00540 ± 0.00581
Thymus	2.36 ± 1.00	5.69 ± 8.66	0.00464 ± 0.00130
Thyroid	8.54 ± 5.95	16.1 ± 26.0	0.00125 ± 0.00059
Urinary Bladder	10.9 ± 6.1	21.3 ± 28.9	0.0103 ± 0.0015
Pancreas	0.614 ± 0.489	1.48 ± 2.35	0.00700 ± 0.00541
Testes	1.24 ± 0.31	2.73 ± 3.81	0.0193 ± 0.0050
Cecum	2.13 ± 0.85	4.91 ± 6.65	0.00995 ± 0.00406
Large Intestine	0.938 ± 0.142	2.61 ± 4.18	0.0128 ± 0.0025
Small Intestine	0.899 ± 0.704	1.61 ± 2.07	0.0458 ± 0.0317
Stomach	0.791 ± 0.210	1.77 ± 2.44	0.00736 ± 0.00120

Disposition Summary

Sample	% Dose Recovered
Total Unabsorbed Dose	19.5 ± 8.2
Applicator	2.82 ± 0.74
Tape / Glue	8.90 ± 4.53
Dose Site Swipes	7.79 ± 4.06
Total Dose Site Skin	1.10 ± 0.43
Total Absorbed Dose	57.2 ± 2.8
Urine + Cage Rinse	18.8 ± 4.6
Urine	2.63 ± 3.01
Cage Rinse	16.2 ± 4.6
Feces	29.5 ± 4.1
GI Content	0.569 ± 0.211
Carcass	0.0167 ± 0.0374
Tissues	3.31 ± 2.33
Total Recovered	77.8 ± 9.0

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 10 mg HMB/kg. The actual dose delivered was 10.2 ± 0.4 mg/kg (105 ± 4 µCi).

^bCumulative 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 4.9%, muscle 38.4%, and skin 16.5% (International Life Sciences Institute, 1994)