

**Disposition of Radioactivity 72 Hours Following Dermal Application of 15 mg/kg^a [¹⁴C]HMB,
Formulated in Lotion (Olive Oil:Emulsifying Wax:Water, 15:15:70 v:v:v), to
Female Harlan Sprague Dawley Rats (Group K)^b**

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^c	Cage Rinse CPDE	Feces CPDE	GI Content	Total
4	0.252 ± 0.116	0.120 ± 0.042	–	–	0.372
8	0.591 ± 0.342	0.277 ± 0.196	–	–	0.868
12	1.43 ± 0.50	0.637 ± 0.304	–	–	2.07
24	3.20 ± 1.32	1.06 ± 0.51	1.81 ± 0.66	–	6.07
48	7.89 ± 2.58	1.93 ± 0.60	5.56 ± 0.88	–	15.4
72 ^d	11.4 ± 3.6	4.70 ± 1.42	8.84 ± 1.21	2.00 ± 0.48	27.3

Disposition in Tissues

Tissue	nmol-eq HMB per g Tissue	Tissue/ Blood Ratio	Recovery (%)
Blood ^e	0.498 ± 0.122	unity	0.0573 ± 0.0129
Adipose ^e	3.8 ± 1.75	7.61 ± 2.25	0.415 ± 0.176
Muscle ^e	0.295 ± 0.087	0.603 ± 0.157	0.184 ± 0.048
Skin ^e	1.80 ± 1.09	3.54 ± 1.71	0.535 ± 0.335
Brain	0.124 ± 0.023	0.256 ± 0.053	0.00176 ± 0.00033
Heart	0.267 ± 0.102	0.533 ± 0.135	0.00142 ± 0.00049
Kidneys	2.02 ± 0.91	3.97 ± 0.95	0.0211 ± 0.0087
Liver	1.29 ± 0.46	2.56 ± 0.38	0.0833 ± 0.0243
Lung	0.360 ± 0.100	0.726 ± 0.113	0.00329 ± 0.00086
Spleen	0.407 ± 0.451	0.731 ± 0.629	0.00189 ± 0.00210
Adrenals	1.14 ± 0.52	2.27 ± 0.74	0.00031 ± 0.00009
Thymus	0.22 ± 0.139	0.521 ± 0.481	0.00066 ± 0.00040
Thyroid	0.809 ± 0.448	1.84 ± 1.43	0.00036 ± 0.00026
Urinary Bladder	1.79 ± 0.92	3.68 ± 1.83	0.00055 ± 0.00032
Pancreas	0.927 ± 0.676	1.80 ± 1.00	0.00727 ± 0.00490
Ovaries	1.54 ± 1.46	2.80 ± 2.05	0.00577 ± 0.00588
Cecum	7.88 ± 5.13	15.3 ± 7.1	0.0298 ± 0.0151
Large Intestine	2.66 ± 1.51	5.57 ± 3.24	0.0224 ± 0.0108
Small Intestine	10.1 ± 6.7	19.6 ± 9.0	0.259 ± 0.168
Stomach	0.803 ± 0.651	1.53 ± 0.88	0.00669 ± 0.00509

Disposition Summary

Sample	% Dose Recovered
Total Unabsorbed Dose	56.0 ± 7.2
Applicator	5.71 ± 2.32
Tape/Glue	7.66 ± 2.96
Dose Site Swipes	42.6 ± 9.2
Total Dose Site Skin	2.68 ± 2.62
Total Absorbed Dose	28.9 ± 4.1
Urine + Cage Rinse	16.3 ± 3.0
Urine	11.4 ± 3.6
Cage Rinse	4.70 ± 1.42
Feces	8.84 ± 1.21
GI Content	2.00 ± 0.48
Carcass	0.00 ± 0.00
Tissues	1.64 ± 0.69
Total Recovered	87.6 ± 2.7

^aDosing error, intended dose was 10 mg/kg.

^bAll values expressed as mean ± standard deviation (SD) (N = 5). The actual dose delivered was 15.8 ± 1.0 mg/kg (59.3 ± 3.8 µCi).

^cCPDE = Cumulative percent dose excreted.

^d72 hour (h) urine collection includes urine present in the urinary bladder at study termination.

^eTissue 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).