Disposition of Radioactivity 72 Hours Following Dermal Application of 10 mg/kg [^{14}C]HMB, Formulated in Lotion (Olive Oil:Emulsifying Wax:Water, 15:15:70 v:v:v), to Female B6C3F$_1$/N Mice (Group L)[a]

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE[b]	Cage Rinse CPDE	Feces CPDE	GI Content	Total
4	0.100 ± 0.149	0.677 ± 0.451	–	–	0.777
8	0.687 ± 0.869	2.04 ± 1.12	–	–	2.73
12	0.818 ± 0.854	3.21 ± 1.60	–	–	4.02
24	1.93 ± 1.97	5.20 ± 1.69	11.6 ± 3.7	–	18.8
48	2.57 ± 1.82	7.27 ± 1.19	21.2 ± 7.3	–	31.0
72[c]	3.62 ± 2.46	12.5 ± 3.4	26.3 ± 9.9	0.705 ± 0.106	45.0

Disposition in Tissues

Tissue	nmol-eq HMB per g Tissue	Tissue/ Blood Ratio	Recovery (%)
Blood[d]	0.225 ± 0.041	unity	0.0244 ± 0.0048
Adipose[d]	1.26 ± 0.48	5.65 ± 2.06	0.194 ± 0.073
Muscle[d]	0.399 ± 0.114	1.83 ± 0.57	0.338 ± 0.097
Skin[d]	0.837 ± 0.169	3.82 ± 0.96	0.304 ± 0.058
Brain	0.0721 ± 0.0267	0.324 ± 0.116	0.00340 ± 0.00125
Heart	0.154 ± 0.047	0.701 ± 0.214	0.00128 ± 0.00037
Kidneys	0.602 ± 0.115	2.74 ± 0.61	0.0149 ± 0.0028
Liver	1.03 ± 0.17	4.67 ± 0.91	0.101 ± 0.021
Lung	0.425 ± 0.127	1.96 ± 0.76	0.00537 ± 0.00176
Spleen	0.192 ± 0.041	0.867 ± 0.192	0.00079 ± 0.00009
Adrenals	2.11 ± 0.75	9.79 ± 3.86	0.00073 ± 0.00021
Thymus	0.255 ± 0.103	1.19 ± 0.60	0.00085 ± 0.00040
Thyroid	1.19 ± 0.44	5.47 ± 2.27	0.00041 ± 0.00007
Urinary Bladder	1.01 ± 0.83	4.60 ± 3.72	0.00095 ± 0.00061
Pancreas	0.464 ± 0.267	2.22 ± 1.54	0.00814 ± 0.00470
Ovaries	0.579 ± 0.622	2.60 ± 2.77	0.00244 ± 0.00215
Cecum	3.42 ± 0.45	15.6 ± 3.7	0.0211 ± 0.0126
Large Intestine	1.44 ± 0.72	6.76 ± 3.54	0.0182 ± 0.0082
Small Intestine	2.82 ± 1.06	12.9 ± 5.2	0.131 ± 0.037
Stomach	0.458 ± 0.223	2.09 ± 1.04	0.00530 ± 0.00268

Disposition Summary

Sample	% Dose Recovered
Total Unabsorbed Dose	**40.7 ± 5.0**
Applicator	14.6 ± 6.9
Tape/Glue	2.96 ± 1.34
Dose Site Swipes	23.1 ± 8.1
Total Dose Site Skin	**0.657 ± 0.595**
Total Absorbed Dose	**46.2 ± 7.3**
Urine + Cage Rinse	17.1 ± 3.9
Urine	3.62 ± 2.46
Cage Rinse	12.5 ± 3.4
Feces	26.3 ± 9.9
GI Content	0.705 ± 0.106
Carcass	0.00 ± 0.00
Tissues	1.18 ± 0.25
Total Recovered	**87.5 ± 8.3**

[a]All values expressed as mean ± standard deviation (SD) (N = 5). The actual dose delivered was 11.1 ± 0.7 mg/kg (88.3 ± 5.7 µCi).
[b]CPDE = Cumulative percent dose excreted.
[c]72 hour (h) urine collection includes urine present in the urinary bladder at study termination.
[d]Tissue 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)