

### Distribution of Radioactivity 72 Hours Following Oral Administration of 500 mg/kg [<sup>14</sup>C]DMAE to Male Wistar Han Rats (DMAE Study C)<sup>a</sup>

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE <sup>b</sup>	Feces CPDE	CO <sub>2</sub> <sup>c</sup> CPDE	Total CPDE
4	6.71 ± 4.78	d	0.717 ± 0.279	7.43 ± 5.03
8	28.3 ± 11.4	0.500 ± 1.042	1.77 ± 0.64	30.6 ± 11.4
12	45.4 ± 8.3	d	4.03 ± 1.47	49.9 ± 8.7
24	61.2 ± 2.3	0.658 ± 1.087	6.22 ± 1.59	68.1 ± 2.7
32	e	d	7.35 ± 1.70	69.2 ± 2.9
39	e	d	7.94 ± 1.72	69.8 ± 2.9
48	66.7 ± 2.2	0.930 ± 1.023	f	75.5 ± 2.7
72g	68.6 ± 2.0	1.11 ± 1.01	f	77.7 ± 2.7

Distribution in Tissues (72 hours)

Tissue	nmol-eq DMAE/g Mean	nmol-eq DMAE/g SD	TBR <sup>i</sup> Mean	TBR SD	Dose in Total Tissue (%) Mean	Dose in Total Tissue (%) SD
Adipose <sup>h</sup>	520	438	0.772	0.667	0.620	0.516
Urinary Bladder	1243	137	1.80	0.22	0.0226	0.0222
Blood <sup>h</sup>	692	51	Unity	–	0.874	0.060
Brain	1413	135	2.05	0.22	0.134	0.030
Heart	1283	121	1.86	0.14	0.0670	0.0068
Kidney	3801	402	5.50	0.59	0.471	0.050
Liver	4891	649	7.09	0.99	2.62	0.21
Lung	2215	353	3.22	0.62	0.162	0.023
Muscle <sup>h</sup>	691	60	1.00	0.07	4.77	0.38
Skin <sup>h</sup>	957	84	1.39	0.14	3.10	0.22
Spleen	2111	289	3.05	0.34	0.0795	0.0187
Thyroid	1669	450	1.80	0.22	0.0052	0.0051
Testes	1027	165	1.49	0.23	0.188	0.063
Stomach <sup>i</sup>	NA <sup>j</sup>	–	NA	–	0.248	0.060
Small Intestine <sup>i</sup>	NA	–	NA	–	0.816	0.149
Cecum <sup>i</sup>	NA	–	NA	–	0.129	0.037
Large Intestine <sup>i</sup>	NA	–	NA	–	0.168	0.014
Carcass <sup>k</sup>	NA	–	NA	–	0.0839	0.168

Disposition Summary [Dose Recovered (%)]

Tissues and GI Tract	Excreted	Total
14.5 ± 1.2	77.4 ± 3.0	92.0 ± 2.2

<sup>a</sup>All values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 500 mg DMAE/kg.

The actual dose delivered was 495 ± 2 mg/kg (15.3 ± 0.6 µCi).

<sup>b</sup>CPDE = Cumulative percent dose excreted.

<sup>c</sup>CO<sub>2</sub> (trapped by 1 N NaOH in H<sub>2</sub>O) in exhaled breath.

<sup>d</sup>Feces were collected at 8, 24, 48, and 72 hours (h) after [<sup>14</sup>C]DMAE administration.

<sup>e</sup>Urine was collected at 4, 8, 12, 24, 48, and 72 h after [<sup>14</sup>C]DMAE administration.

<sup>f</sup>Collection of CO<sub>2</sub> was terminated at 39 h after [<sup>14</sup>C]DMAE administration.

<sup>g</sup>72 h urine collection includes urine present in the urinary bladder at study termination.

<sup>h</sup>Percent of dose in these tissues calculated using the following percentages of body weight: adipose 7.0%, blood 7.4%, muscle 40.4%, and skin 19.0%.

<sup>i</sup>Includes contents.

<sup>j</sup>NA = Not applicable.

<sup>k</sup>Carcass values are based on the residual digested carcass after the removal of the listed tissues (i.e., percent dose measured in skin, adipose, blood, and muscle was subtracted from the total percent dose measured in the carcass).

<sup>l</sup>TBR = Tissue to blood ratio.