

Recovery of Radioactivity 72 Hours Following Single Intravenous Administration of 0.3 mg/kg [¹⁴C]Dicyclohexylcarbodiimide to Male Fischer 344 Rats – Study C^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	Volatile Organics ^c CPDE	CO ₂ ^c CPDE	Total CPDE
6	NC ^d	NC	NC	0.04 ± 0.02	0.08 ± 0.01	0.12 ± 0.03
8	31.2 ± 7.2	NC	NC	0.04 ± 0.02	0.08 ± 0.01	31.3 ± 7.1
24	49.5 ± 4.2	NC	16.5 ± 1.5	0.08 ± 0.03	0.14 ± 0.02	66.2 ± 5.2
48	52.4 ± 4.5	NC	20.5 ± 0.9	0.11 ± 0.05	0.16 ± 0.02	73.1 ± 5.4
72	53.7 ± 4.7	0.4 ± 0.2	21.6 ± 1.4	0.12 ± 0.05	0.17 ± 0.02	75.9 ± 6.1

Distribution in Tissues (72 hours)

Tissue	ng-eq per g tissue Mean	ng-eq per g tissue SD	TBR ^e Mean	TBR SD	% Dose in Total Tissue ^f Mean	% Dose in Total Tissue SD
Adipose	221.0	56.1	82.1	23.4	5.2	1.4
Bladder	27.3	5.7	10.1	1.6	0.004	0.001
Blood	2.7	0.2	Unity	–	0.047	0.003
Brain	71.6	33.4	26.7	12.9	0.2	0.1
Heart	186.0	89.2	69.3	34.2	0.20	0.08
Jugular Vein	45.2	17.5	16.9	7.1	0.015	0.003
Kidney	109.0	16.0	40.3	3.4	0.30	0.03
Liver	23.4	2.5	8.6	0.5	0.321	0.006
Lung	44.3	27.7	16.6	10.7	0.06	0.03
Muscle	26.8	7.5	9.9	2.4	4.3	1.2
Skin	21.5	5.7	8.0	2.0	1.2	0.3
Spleen	34.4	9.0	12.6	2.6	0.03	0.01
Testes	12.4	1.8	4.6	0.7	0.05	0.01
Carcass ^g	NA ^h	–	NA	–	0.83	1.1

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 0.3 mg dicyclohexylcarbodiimide/kg body weight. The actual dose delivered was 0.3 ± 0.003 mg/kg (10.7 ± 0.3 μ Ci/animal). At all intravenous (iv) dose levels, signs of toxicity were evident (tremor, convulsions, lethargy, piloerection, etc.), but no mortality was associated with any of the iv dose levels studied.

^bCPDE = Cumulative percent dose excreted. Urine values include methanol rinse of the urine flask.

^cVolatile organics and CO₂ in exhaled breath.

^dNC = not collected. No collection was scheduled for this time interval.

^eTBR = Tissue/Blood ratio.

^fPercent Dose was calculated using the following values for the mass of total tissue, expressed as percent of body weight: adipose, 7.0%; blood, 5.2%; muscle, 48%; and skin, 17%.

^gCarcass values are based on the residual digested carcass after the removal of the listed tissues (i.e., percent dose measured in skin, adipose, muscle (Studies C and D), and blood was subtracted from the total percent dose measured in the carcass).

^hNA = not applicable