

NTP Study S0941 Sodium dichromate dihydrate (VI)

Recovery of Radioactivity 24 Hours Following Single Oral Administration
of $^{51}\text{CrCl}_3$ plus Nonradiolabeled $\text{Na}_2\text{Cr}_2\text{O}_7$ (4 $\mu\text{mol}/\text{kg}$) to Male B6C3F₁ Mice (Study E)^a

Distribution in Tissues in Fasted Mice (24 hours)

Tissue	nmol-eq Chromium per g Tissue	Tissue/Blood Ratio	% Dose in Total Tissue
Blood ^b	0.0780 \pm 0.1476	unity	0.0895 \pm 0.1686
Forestomach ^c	0.0542 \pm 0.0634	24.4 \pm 24.1	0.00189 \pm 0.00171
Glandular Stomach ^c	0.0571 \pm 0.0761	21.3 \pm 23.5	0.00463 \pm 0.00584
Duodenum ^c	0.280 \pm 0.193	278 \pm 463	0.0280 \pm 0.0205
Jejunum ^c	0.114 \pm 0.119	66.4 \pm 114.9	0.0295 \pm 0.0208
Ileum ^c	0.0794 \pm 0.1223	26.8 \pm 51.8	0.00652 \pm 0.00863
Cecum ^c	0.106 \pm 0.156	34.2 \pm 54.0	0.00474 \pm 0.00563
Large Intestine ^c	0.0492 \pm 0.0704 ^z	12.4 \pm 10.8	0.00565 \pm 0.00710

Distribution in Tissues in Fed Mice (24 hours)

Tissue	nmol-eq Chromium per g Tissue	Tissue/Blood Ratio	% Dose in Total Tissue
Blood ^b	0.00256 \pm 0.00393	unity	0.00303 \pm 0.00462
Forestomach ^c	0.0531 \pm 0.0141	75.5 \pm 51.1	0.00192 \pm 0.00060
Glandular Stomach ^c	0.0628 \pm 0.0265	89.6 \pm 73.3	0.00541 \pm 0.00273
Duodenum ^c	0.144 \pm 0.050	237 \pm 173	0.0219 \pm 0.0118
Jejunum ^c	0.0130 \pm 0.0064	18.7 \pm 16.8	0.00581 \pm 0.00202
Ileum ^c	0.00762 \pm 0.00546	10.7 \pm 12.3	0.000546 \pm 0.000451
Cecum ^c	0.0180 \pm 0.0103	24.0 \pm 22.8	0.00133 \pm 0.00095
Large Intestine ^c	0.00922 \pm 0.00150 ^z	13.7 \pm 8.8	0.00127 \pm 0.00036

% Dose Recovered

Sample	Fasted	Fed
GI Tissues	0.0824 \pm 0.0606	0.0362 \pm 0.0079
Blood and GI Tissues	0.173 \pm 0.218	0.0393 \pm 0.0079

^aAll values expressed as mean \pm standard deviation (SD) (N = 4 for fasted mice and N = 4 for fed mice.) The target dose was 4 μmol chromium/kg. The actual dose delivered was 4.00 \pm 0.07 $\mu\text{mol}/\text{kg}$ (5.19 \pm 0.72 μCi). (N = 8).

^bPercent of dose in blood was calculated using the following percentages of body weight: blood 4.9% (International Life Sciences Institute. 1994. Physiological parameter values for PBPK models.)

^cDoes not include contents.

^zStatistically different between fasted and fed mice.