

Recovery of Radioactivity 24 Hours Following Single Oral Administration of $\text{Na}_2^{51}\text{CrO}_4$ plus Nonradiolabeled $\text{Na}_2\text{Cr}_2\text{O}_7$ (4 $\mu\text{mol/kg}$) to Male B6C3F₁ Mice (Study I)^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	0.0474 ± 0.0130 ^z	unity	0.0603 ± 0.0153 ^z
Forestomach ^c	0.613 ± 0.346	13.9 ± 10.3	0.0313 ± 0.0190
Glandular Stomach ^c	0.974 ± 0.177	21.4 ± 5.3	0.0886 ± 0.0159
Duodenum ^c	13.6 ± 6.2 ^z	297 ± 135	1.56 ± 0.79
Jejunum ^c	1.54 ± 0.63 ^z	33.1 ± 12.6	0.905 ± 0.470
Ileum ^c	0.0477 ± 0.0027 ^z	1.07 ± 0.32	0.00531 ± 0.00169
Cecum ^c	0.109 ± 0.037 ^z	2.36 ± 0.85	0.00915 ± 0.00300
Large Intestine ^c	0.0373 ± 0.0077	0.843 ± 0.355	0.00578 ± 0.00078

Distribution in Tissues in Fed Mice (24 hours)

Tissue	nmol-eq Chromium per g Tissue	Tissue/Blood Ratio	% Dose in Total Tissue
Blood ^b	0.00927 ± 0.00447 ^z	unity	0.0100 ± 0.0047 ^z
Forestomach ^c	0.830 ± 0.407	94.5 ± 44.0	0.0324 ± 0.0225
Glandular Stomach ^c	1.53 ± 0.77	218 ± 193	0.134 ± 0.063
Duodenum ^c	0.695 ± 0.451 ^z	81.7 ± 70.2	0.0754 ± 0.0557
Jejunum ^c	0.0345 ± 0.0150 ^z	4.35 ± 3.07	0.0155 ± 0.0064
Ileum ^c	0.0175 ± 0.0113 ^z	2.04 ± 1.44	0.00112 ± 0.00065
Cecum ^c	0.0510 ± 0.0257 ^z	5.79 ± 2.74	0.00408 ± 0.00195
Large Intestine ^c	0.0403 ± 0.0352	3.89 ± 2.28	0.00576 ± 0.00603

% Dose Recovered

Sample	Fasted	Fed
GI Tissues	2.61 ± 1.11 ^z	0.268 ± 0.104 ^z
Blood and GI Tissues	2.67 ± 1.12 ^z	0.278 ± 0.106 ^z

^aAll values expressed as mean ± 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 4.42 ± 0.06 $\mu\text{mol/kg}$ (5.96 ± 0.53 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. (p ≤ 0.05).