

Recovery of Radioactivity 24 Hours Following Single Oral Administration of $^{51}\text{CrCl}_3$ plus Nonradiolabeled $\text{Na}_2\text{Cr}_2\text{O}_7$ (2 $\mu\text{mol/kg}$) to Male F344 Rat (Study H)^a

Distribution in Tissues in Fasted Rat (24 hours)

Tissue	nmol-eq Chromium per g Tissue	Tissue/Blood Ratio	% Dose in Total Tissue
Blood ^b	0.0015 $\pm$ 0.0018	unity	0.0053 $\pm$ 0.0064
Forestomach ^c	0.0370 $\pm$ 0.0261	15.9 $\pm$ 6.71 ^d	0.0036 $\pm$ 0.0026
Glandular Stomach ^c	0.0705 $\pm$ 0.0324	27.5 $\pm$ 3.94 ^d	0.0099 $\pm$ 0.0031
Duodenum ^c	0.0556 $\pm$ 0.0310	18.6 $\pm$ 1.84 ^d	0.0069 $\pm$ 0.0040
Jejunum ^c	0.0217 $\pm$ 0.0170	5.73 $\pm$ 0.85 ^d	0.0154 $\pm$ 0.0114
Ileum ^c	0.0018 $\pm$ 0.0016	0.520 $\pm$ 0.736 ^d	0.0003 $\pm$ 0.0003
Cecum ^c	0.0132 $\pm$ 0.0052	4.93 $\pm$ 1.07 ^d	0.0022 $\pm$ 0.0008
Large Intestine ^c	0.0123 $\pm$ 0.0079	5.65 $\pm$ 1.04 ^d	0.0020 $\pm$ 0.0010

Distribution in Tissues in Fed Rat (24 hours)

Tissue	nmol-eq Chromium per g Tissue	Tissue/Blood Ratio	% Dose in Total Tissue
Blood ^b	0.0042 $\pm$ 0.0023	unity	0.0140 $\pm$ 0.0077
Forestomach ^c	0.0166 $\pm$ 0.0124	5.43 $\pm$ 6.14	0.0012 $\pm$ 0.0008
Glandular Stomach ^c	0.0299 $\pm$ 0.0064	10.3 $\pm$ 9.13	0.0044 $\pm$ 0.0007
Duodenum ^c	0.0167 $\pm$ 0.0095	5.95 $\pm$ 6.74	0.0023 $\pm$ 0.0006
Jejunum ^c	0.0052 $\pm$ 0.0018	1.95 $\pm$ 2.06	0.0034 $\pm$ 0.0012
Ileum ^c	0.0037 $\pm$ 0.0048	1.49 $\pm$ 1.74	0.0004 $\pm$ 0.0004
Cecum ^c	0.0780 $\pm$ 0.0410	19.4 $\pm$ 9.50	0.0116 $\pm$ 0.0078
Large Intestine ^c	0.0600 $\pm$ 0.0286	15.4 $\pm$ 3.47	0.0100 $\pm$ 0.0038

% Dose Recovered

Sample	Fasted	Fed
GI Tissues	0.0403 $\pm$ 0.0207	0.0333 $\pm$ 0.0089
Blood and GI Tissues	0.0456 $\pm$ 0.0215	0.0473 $\pm$ 0.0165

^aAll values expressed as mean $\pm$ standard deviation (SD) (N = 4 for fasted rats and N = 4 for fed rats.) The target dose was 2 μmol chromium/kg. The actual dose delivered was 2.18 $\pm$ 0.05 $\mu\text{mol/kg}$ (4.91 $\pm$ 0.34 μCi). (N = 8).

^bPercent of dose in blood was calculated using the following percentages of body weight: blood 7.4% (International Life Sciences Institute. 1994. Physiological parameter values for PBPK models.)

^cDoes not include contents.

^dN = 2, due to no radioactivity in two animals' blood.