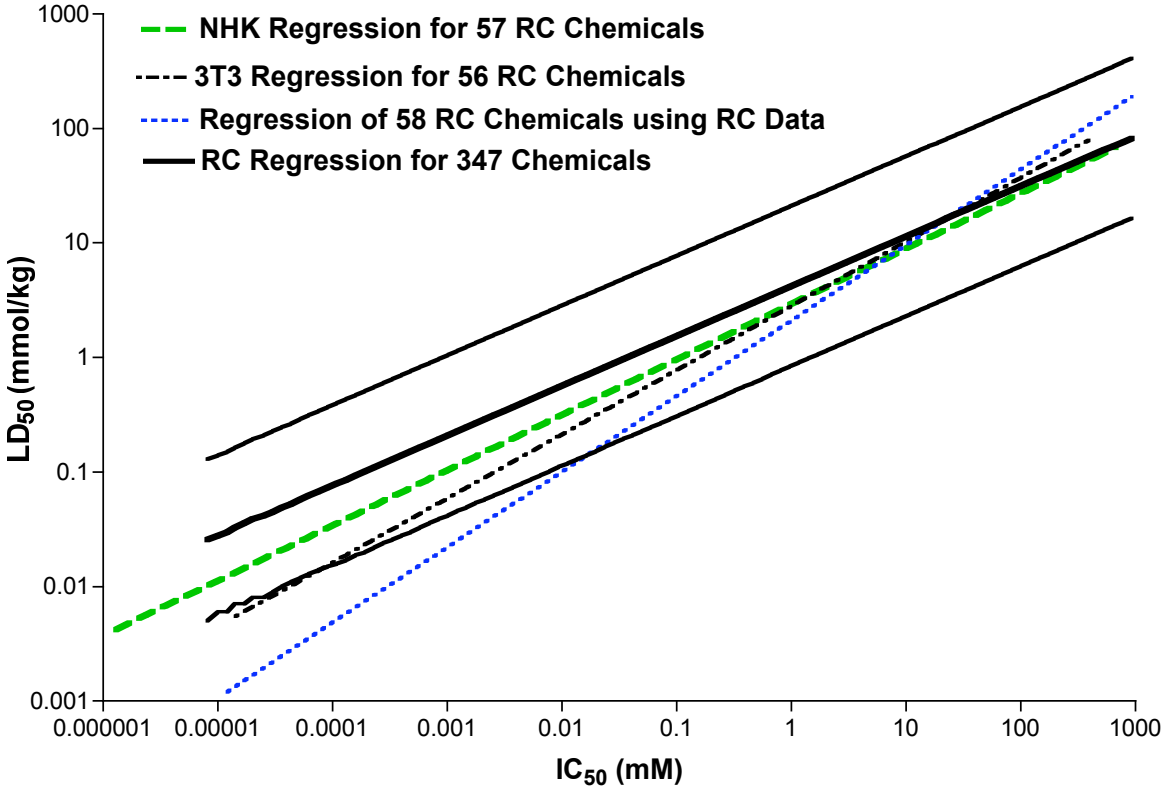
Figure 6-3x with RC Regression

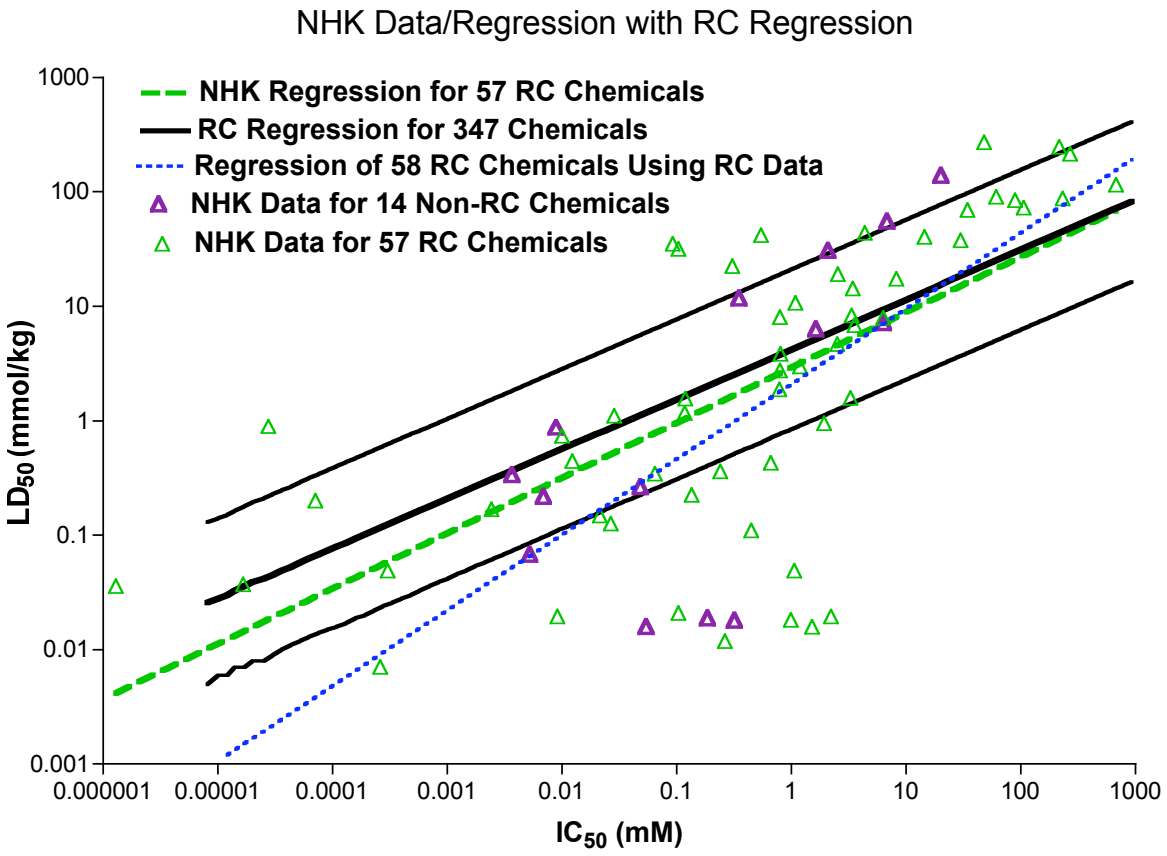


3T3 regression (black dash) uses 56 RC chemicals (with validation study data - geometric mean 3T3 IC50 of three labs with their reference LD50 with the same chemicals). No IC50 was obtained for carbon tetrachloride or methanol. $R^2 = 0.549$

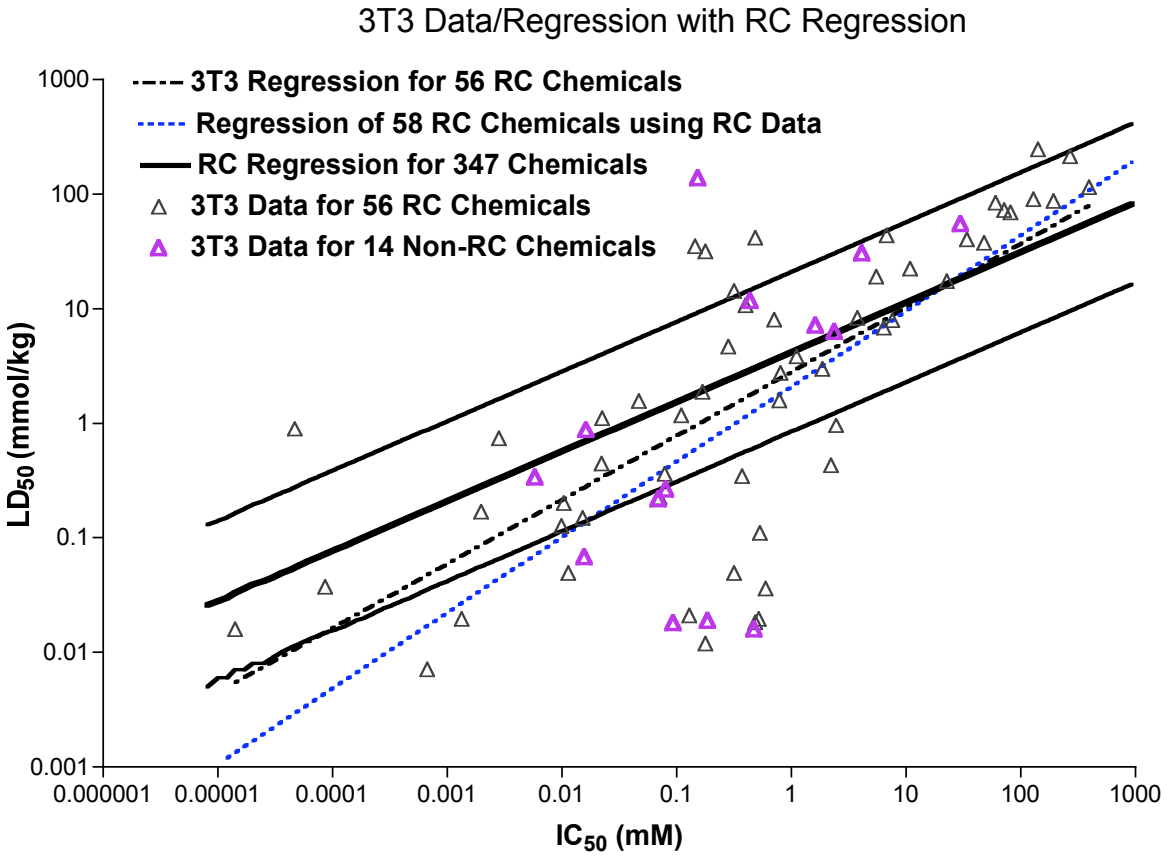
NHK regression (green dash) uses 57 RC chemicals (with validation study data - geometric mean NHK IC50 of three labs with the reference LD50 for the same chemicals). No IC50 was obtained for carbon tetrachloride. $R^2 = 0.467$

Regression of 58 RC chemicals (blue dots) uses RC data (IC50 and LD50) for the 58 RC chemicals tested in the validation study. $R^2 = 0.683$

The solid black lines show the RC regression flanked by the RC acceptance limits. $R^2 = 0.45$



NHK regression (green dash) uses 57 RC chemicals (with validation study data - geometric mean NHK IC50 of three labs with the reference LD50 for the same chemicals). No IC50 was obtained for carbon tetrachloride. Green triangles show data for the 57 RC chemicals. Purple triangles show data for the 14 non-RC chemicals. $R^2 = 0.467$
Regression of 58 RC chemicals (blue dots) uses RC data (IC50 and LD50) for the 58 RC chemicals tested in the validation study. $R^2=0.683$
The solid black lines show the RC regression flanked by the RC acceptance limits. $R^2 = 0.45$



3T3 regression (black dash) uses 56 RC chemicals (with validation study data - geometric mean 3T3 IC50 of three labs with the reference LD50 for the same chemicals). No IC50 was obtained for carbon tetrachloride or methanol. Black triangles show data for the 56 RC chemicals. Purple triangles show data for the 14 non-RC chemicals. R^2=0.549
Regression of 58 RC chemicals (blue dot) uses RC data (IC50 and LD50) for the 58 RC chemicals tested in the validation study. R^2=0.683
The solid black lines show the RC regression flanked by the RC acceptance limits. R^2=0.45

RC Chemical Data Used in the 3T3 and NHK NRU Graphs Above

No.	Assay	Chemical	3T3 IC50 (mM)	NHK IC50 (mM)	Reference LD50 (mmol/kg)
1	3T3	1,1,1-Trichloroethane	129.2890128	60.88050975	90.53369141
2	3T3	2-Propanol	60.19637975	89.24172733	84.92763519
3	3T3	5-Aminosalicylic Acid	10.88713718	0.305040933	22.39059258
4	3T3	Acetaminophen	0.315180493	3.425954092	14.29894161
5	3T3	Acetonitrile	193.7007427	232.1062504	87.5761261
6	3T3	Acetylsalicylic Acid	3.753768072	3.360131895	8.357380867
7	3T3	Aminopterin	1.4187E-05	1.518906926	0.015892114
8	3T3	Amitriptyline HCl	0.022471441	0.028539944	1.111819029
9	3T3	Arsenictrioxide	0.009923034	0.02658608	0.1268702
10	3T3	Atropine Sulfate	0.109430955	0.117768482	1.178756475
11	3T3	Busulfan	0.315392446	1.056185443	0.049206283
12	3T3	Cadmium chloride	0.002824603	0.010055773	0.737588644
13	3T3	Caffeine	0.785387727	3.283267941	1.596292496
14	3T3	Carbon tetrachloride			
15	3T3	Chloral Hydrate	1.106958039	0.805415629	3.857315779
16	3T3	Chloramphenicol	0.396734263	1.077905168	10.7999382
17	3T3	Colchicine	8.5961E-05	1.66258E-05	0.037548814
18	3T3	Cupric Sulfate Pentahydrate	0.168694708	0.787092726	1.902282715
19	3T3	Cycloheximide	0.000665849	0.000260901	0.007107321
20	3T3	Dibutyl Phthalate	0.178643325	0.103075028	31.95113373
21	3T3	Diethyl Phthalate	0.482849171	0.542042984	41.90369034
22	3T3	Digoxin	0.596217301	1.29176E-06	0.036201816
23	3T3	Dimethylformamide	71.46322548	106.1625923	72.57182312
24	3T3	Diquat Dibromide Monohydrate	0.022203218	0.012367772	0.441866875
25	3T3	Disulfoton	0.485265066	0.983321027	0.018220246
26	3T3	Epinephrine Bitartrate	0.176942171	0.262252871	0.012001201
27	3T3	Ethanol	141.5879302	217.4500763	245.7998657
28	3T3	Ethyleneglycol	391.7084477	674.168279	115.3511581
29	3T3	Gibberellic Acid	22.54830276	8.245651422	17.43605232
30	3T3	Glutethimide	0.802676009	0.798701899	2.761159658
31	3T3	Glycerol	267.7241387	268.5437152	214.6813049
32	3T3	Hexachlorophene	0.010308383	7.09127E-05	0.201518759
33	3T3	Lactic Acid	33.7921688	14.4761851	40.35301971
34	3T3	Lindane	0.369960714	0.064394689	0.343878955
35	3T3	Lithium carbonate	7.600561796	6.32955599	7.9848423
36	3T3	Mercury Chloride	0.015183983	0.021348856	0.148066297
37	3T3	methanol		47.71345085	271.8351746
38	3T3	Nicotine	2.22532577	0.657076312	0.429716378
39	3T3	Paraquat	0.078296103	0.239488463	0.360419869
40	3T3	Parathion	0.128463743	0.103891071	0.020940611
41	3T3	Phenobarbital	2.467071158	1.927887466	0.964560986
42	3T3	Phenol	0.704743205	0.797235164	8.096907616
43	3T3	Phenylthiourea	0.518915276	2.209851668	0.019710908
44	3T3	Potassium chloride	47.63435191	30.00655281	37.58551025
45	3T3	Potassium Cyanide	0.532049782	0.444582408	0.110565104
46	3T3	Propranolol	0.046817864	0.119455653	1.575175762
47	3T3	Propylparaben	0.144699634	0.092167658	35.13873672
48	3T3	Sodium Chloride	80.94495656	34.1770233	69.30184937
49	3T3	Sodium Dichromate Dihydrate	0.00196886	0.00241969	0.169463083

No.	Assay	Chemical	3T3 IC50 (mM)	NHK IC50 (mM)	Reference LD50 (mmol/kg)
50	3T3	Sodium fluoride	1.858157735	1.186185328	3.019766569
51	3T3	Sodium Oxalate	0.281640565	2.514752222	4.723880768
52	3T3	Thallium Sulfate	0.011372885	0.000300333	0.049524564
53	3T3	Trichloroacetic Acid	5.518983032	2.529124257	19.13708687
54	3T3	Triethylenemelamine	0.001332854	0.00907183	0.019585762
55	3T3	Triphenyltin Hydroxide	4.68788E-05	2.74003E-05	0.896408916
56	3T3	Valproic Acid	6.353817579	3.551142269	6.907073498
57	3T3	Verapamil HCl	0.071096422	0.135332874	0.226032421
58	3T3	Xylene	6.786796777	4.385288725	43.93896484

Non-RC Chemical Data Used in the 3T3 and NHK NRU Graphs Above

No.	Chemical	3T3 IC50 (mM)	NHK IC50 (mM)	Reference LD50 (mmol/kg)
1	Boric Acid	29.92422886	43.02118683	55.40999222
2	Carbamazepine	0.436719861	8.281845093	11.87896729
3	Citric Acid	4.143550581	15.61686611	30.86413193
4	Dichlorvos	0.080297604	0.076930039	0.265634894
5	Endosulfan	0.015599534	0.044235826	0.068319775
6	Fenpropathrin	0.069364908	0.051512465	0.21663852
7	Haloperidol	0.016296083	0.34051609	0.87789309
8	Meprobamate	2.377093513	3.637196541	6.352725506
9	Physostigmine	0.093677668	0.01633987	0.018155411
10	Procainamide HCl	1.621353226	7.174656868	7.174656868
11	Sodium Arsenite	0.005840571	0.315627426	0.335642815
12	Sodium Hypochlorite	14.81131555	20.1823349	138.7372284
13	Sodium selenate	0.153607046	0.008468296	0.015878057
14	Strychnine	0.472135953	0.007177034	0.018839713