

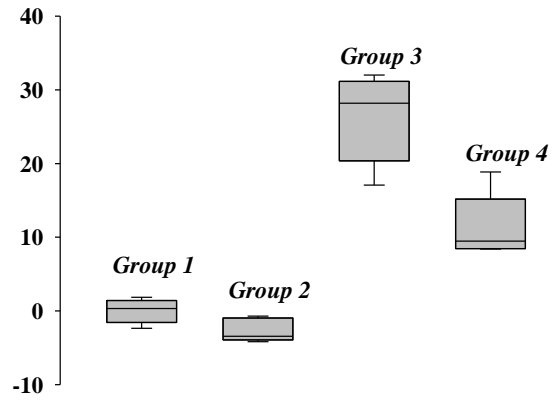
To Fig 1.

# Histology

	group 1	group 2	group 3	group 4
Mean 1	-2.3625	-0.7098	30.3102	11.5002
Mean 2	-0.7715	-3.7087	23.664	8.401
Mean 3	1.8492	-3.4398	28.1929	9.4729
Mean 4	0.9683	-4.181	17.0851	8.5077
Mean 5	0.3163	-1.2238	32.0199	18.8683

## One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	2.653	No
Group 3 vs. Group 1	26.254	Yes
Group 4 vs. Group 1	11.35	Yes
Group 4 vs. Group 3	14.904	Yes



To Fig 2.

CV

b

CIII

c

	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)		Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>
	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Mean 1	0.9445	0.8957	0.9662	0.7402	0.4346	0.454	0.8182	0.8822	1.0162	0.9729	0.8654	0.8373	0.4418	0.4702	0.8438	1.0474
Mean 2	0.9653	0.9741	1.015	0.7833	0.4498	0.3593	0.7779	0.9534	0.9822	0.9617	0.8656	1.0032	0.3551	0.3408	0.8487	0.9309
Mean 3	1.0897	0.8979	1.084	0.9576	0.5369	0.492	0.8303	0.9817	1.0017	1.0917	0.9699	1.0917	0.3931	0.4618	0.9307	1.0997

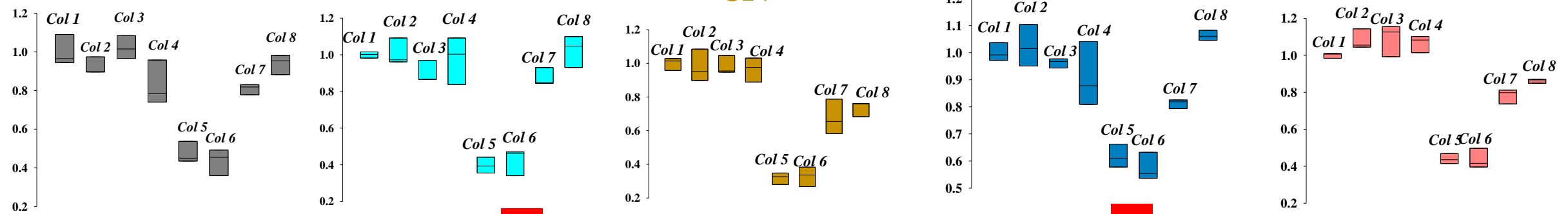
CV

CIII

CIV

CII

CI



CIV

d

CII

e

	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)		Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>
	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Mean 1	1.0283	1.0846	1.0473	1.0315	0.3268	0.3833	0.655	0.7602	1.0368	0.9506	0.9771	1.0409	0.6102	0.5537	0.8189	1.0455
Mean 2	0.9578	0.8982	0.9551	0.889	0.2793	0.2675	0.7878	0.7615	0.9715	1.0149	0.9432	0.809	0.5778	0.5362	0.8254	1.0827
Mean 3	1.014	0.9523	0.9478	0.9759	0.3484	0.3363	0.5822	0.683	0.9917	1.1039	0.9671	0.8781	0.6623	0.6323	0.7933	1.0603

f

CI

	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>
	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Mean 1	1.0064	1.0552	0.9925	1.0145	0.4353	0.497	0.7978	0.8491
Mean 2	1.0097	1.1435	1.1261	1.0826	0.4145	0.4157	0.7374	0.8616
Mean 3	0.9838	1.0445	1.1554	1.1019	0.4686	0.3958	0.8122	0.8698

One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

**b** CV

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0219	No
Col 5 vs. Col 1	0.526	Yes
Col 7 vs. Col 1	0.191	Yes
Col 7 vs. Col 5	0.335	Yes
Col 4 vs. Col 2	0.0956	No
Col 6 vs. Col 2	0.487	Yes
Col 8 vs. Col 2	0.0165	No
Col 8 vs. Col 6	0.504	Yes

**c** CIII

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0997	No
Col 5 vs. Col 1	0.603	Yes
Col 7 vs. Col 1	0.126	Yes
Col 7 vs. Col 5	0.478	Yes
Col 4 vs. Col 2	0.0314	No
Col 6 vs. Col 2	0.585	Yes
Col 8 vs. Col 2	0.0172	No
Col 8 vs. Col 6	0.602	Yes

**d** CIV

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0167	No
Col 5 vs. Col 1	0.682	Yes
Col 7 vs. Col 1	0.325	Yes
Col 7 vs. Col 5	0.357	Yes
Col 4 vs. Col 2	0.0129	No
Col 6 vs. Col 2	0.649	Yes
Col 8 vs. Col 2	0.243	Yes
Col 8 vs. Col 6	0.406	Yes

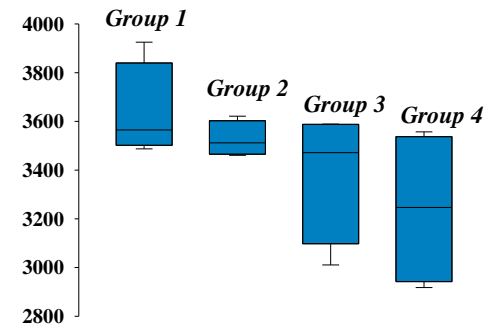
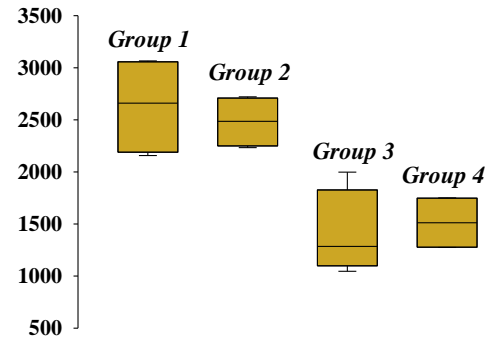
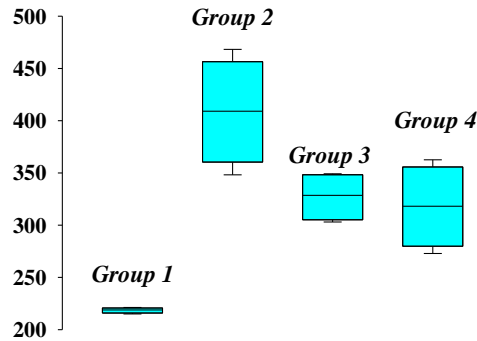
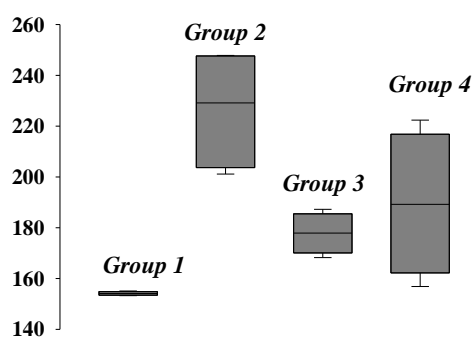
**e** CII

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0375	No
Col 5 vs. Col 1	0.383	Yes
Col 7 vs. Col 1	0.187	Yes
Col 7 vs. Col 5	0.196	Yes
Col 4 vs. Col 2	0.114	No
Col 6 vs. Col 2	0.449	Yes
Col 8 vs. Col 2	0.0397	No
Col 8 vs. Col 6	0.243	Yes

**f** CI

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0914	No
Col 5 vs. Col 1	0.56	Yes
Col 7 vs. Col 1	0.218	Yes
Col 7 vs. Col 5	0.343	Yes
Col 4 vs. Col 2	0.0148	No
Col 6 vs. Col 2	0.645	Yes
Col 8 vs. Col 2	0.221	Yes
Col 8 vs. Col 6	0.424	Yes

	a EGTA				b Ca <sup>2+</sup>				c Antimycin A				Menadion			
	group 1	group 2	group 3	group 4	group 1	group 2	group 3	group 4	group 1	group 2	group 3	group 4	group 1	group 2	group 3	group 4
Mean 1	153.254	155.076	154.2425	153.985	221.1721	468.3049	349.2489	362.6013	3065.839	2675.2	1257.54	1738.745	3065.839	2675.2	1257.54	1738.745
Mean 2	211.32	247.8493	201.1665	247.021	218.4544	348.2448	303.0058	272.8328	3034.017	2233.789	1998.255	1283.949	3034.017	2233.789	1998.255	1283.949
Mean 3	168.2341	180.2	175.591	187.24	219.2125	421.1324	311.5495	300.8622	2287.21	2721.132	1311.515	1750.334	2287.21	2721.132	1311.515	1750.334
Mean 4	178.2	222.3907	156.8632	200.2	215.022	397.0241	345.52	335.2542	2157.54	2297.024	1045.52	1274.35	2157.54	2297.024	1045.52	1274.35



EGTA

Ca<sup>2+</sup>

Antimycin A

Menadion

Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	72.7	Yes
Group 3 vs. Group 1	23.677	Yes
Group 4 vs. Group 1	35.274	No
Group 4 vs. Group 3	11.597	No

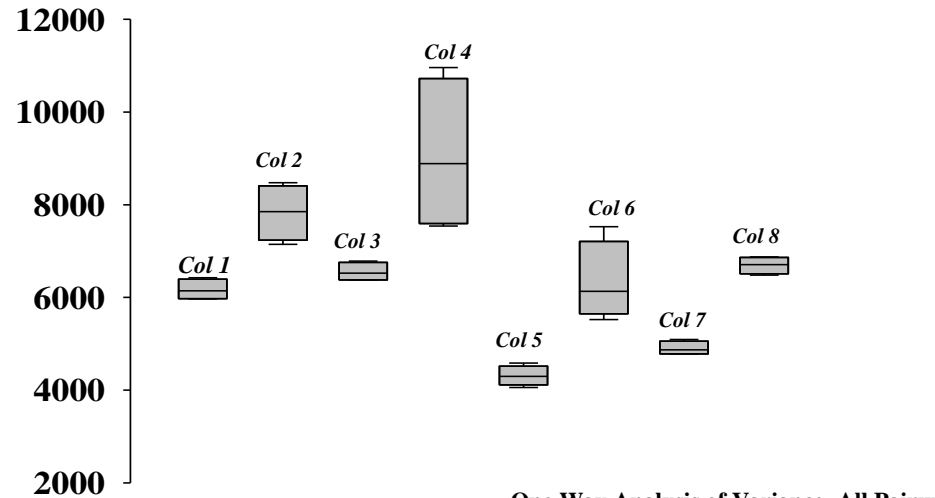
Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	190.211	Yes
Group 3 vs. Group 1	108.866	Yes
Group 4 vs. Group 1	99.422	No
Group 4 vs. Group 3	9.443	No

Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	154.365	No
Group 3 vs. Group 1	1232.944	Yes
Group 4 vs. Group 1	1124.307	Yes
Group 4 vs. Group 3	108.637	No

Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	-	No
Group 3 vs. Group 1	-	No
Group 4 vs. Group 1	-	No
Group 4 vs. Group 3	-	No

To Fig 4.

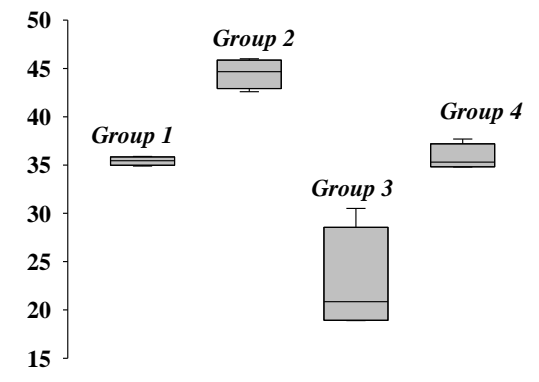
	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	EGTA Col 1	+Ca <sup>2+</sup> Col 2	EGTA Col 3	+Ca <sup>2+</sup> Col 4	EGTA Col 5	+Ca <sup>2+</sup> Col 6	EGTA Col 7	+Ca <sup>2+</sup> Col 8
Mean 1	5967.334	6669.512	4054.999	5091.304	8475.932	7761.909	7527.677	6831.394
Mean 2	6296.909	6381.048	4306.862	4947.647	7500.807	10961.18	5521.749	6484.883
Mean 3	6425.54	6785.24	4287.014	4789.665	7147.54	10012.36	6011.64	6875.65
Mean 4	5987.35	6375.001	4585.015	4778.644	8201.225	7541.35	6247.465	6587.001



One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	383.417	No
Col 5 vs. Col 1	1860.811	Yes
Col 7 vs. Col 1	1267.468	Yes
Col 7 vs. Col 5	593.343	Yes
Col 4 vs. Col 2	1237.824	No
Col 6 vs. Col 2	1504.243	Yes
Col 8 vs. Col 2	1136.644	Yes
Col 8 vs. Col 6	367.599	No

	group 1	group 2	group 3	group 4
Mean 1	35.2	45.45	30.5	35.71
Mean 2	35.7	42.6	22.7	37.7
Mean 3	34.9	46	19	34.8
Mean 4	35.9	43.9	18.9	34.9

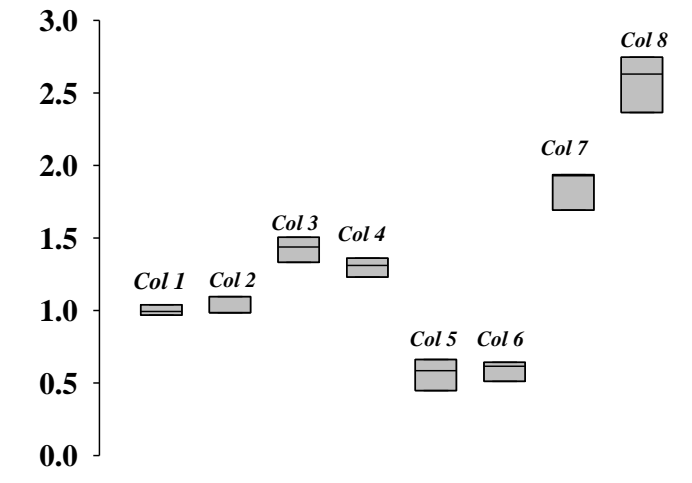


Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	9.063	Yes
Group 3 vs. Group 1	12.650	Yes
Group 4 vs. Group 1	0.353	No
Group 4 vs. Group 3	13.003	Yes

C

SOD2

	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	Control Col 1	+Ca <sup>2+</sup> Col 2	Control Col 3	+Ca <sup>2+</sup> Col 4	Control Col 5	+Ca <sup>2+</sup> Col 6	Control Col 7	+Ca <sup>2+</sup> Col 8
Mean 1	1.0395	0.9847	1.3316	1.3107	0.5844	0.6426	1.9294	2.6305
Mean 2	0.9677	1.0954	1.4384	1.3609	0.6614	0.6148	1.9369	2.3655
Mean 3	0.993	0.9849	1.505	1.2295	0.4472	0.5108	1.6923	2.7463

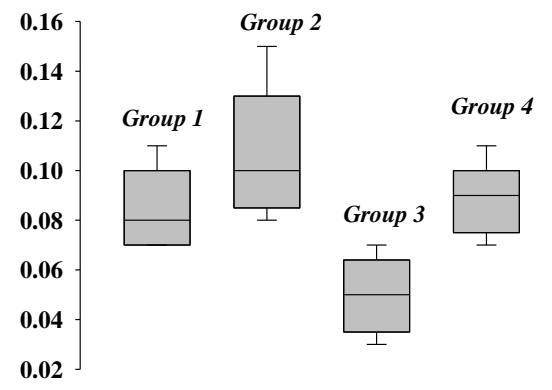


Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.425	Yes
Col 5 vs. Col 1	0.436	Yes
Col 7 vs. Col 1	0.853	Yes
Col 7 vs. Col 5	1.289	Yes
Col 4 vs. Col 2	0.279	Yes
Col 6 vs. Col 2	0.432	Yes
Col 8 vs. Col 2	1.559	Yes
Col 8 vs. Col 6	1.991	Yes

e

CRC

	group 1	group 2	group 3	group 4
Mean 1	150	215	50	200
Mean 2	185	150	150	170
Mean 3	160	220	80	170
Mean 4	170	190	130	190
Mean 5	180	180	100	210



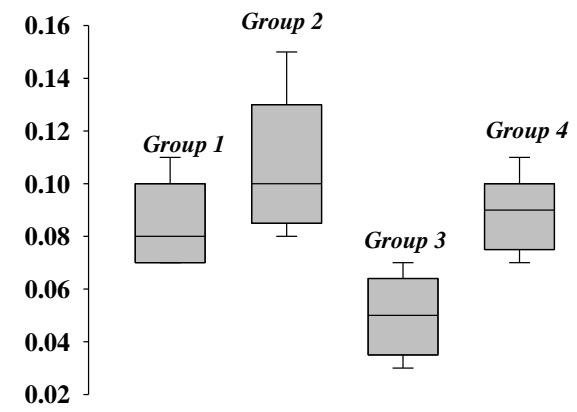
One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	22	No
Group 3 vs. Group 1	67	Yes
Group 4 vs. Group 1	19	No
Group 4 vs. Group 3	67	Yes

f

√TPP+

	group 1	group 2	group 3	group 4
Mean 1	0.07	0.15	0.04	0.09
Mean 2	0.07	0.11	0.03	0.11
Mean 3	0.11	0.09	0.05	0.07
Mean 4	0.09	0.08	0.07	0.08
Mean 5	0.08	0.1	0.058	0.09



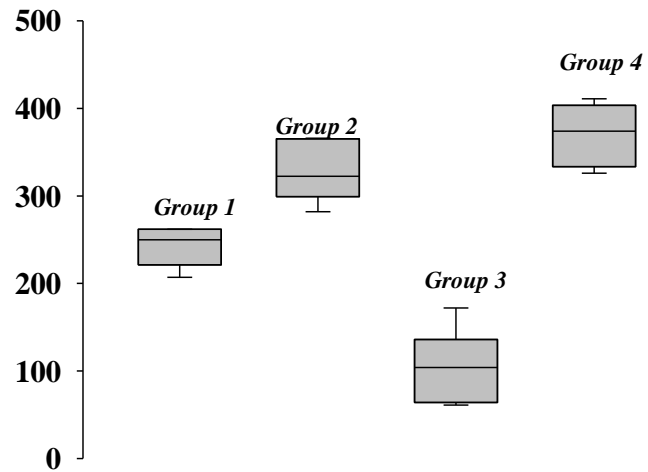
Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	0.022	No
Group 3 vs. Group 1	0.0344	Yes
Group 4 vs. Group 1	0.004	No
Group 4 vs. Group 3	0.0384	Yes

## Swelling $T_{1/2}$

	group 1	group 2	group 3	group 4
Mean 1	207	310	61	326
Mean 2	254	335	65	393
Mean 3	262	365	124	411
Mean 4	246	282	106	355
Mean 5	262	305	102	336

One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

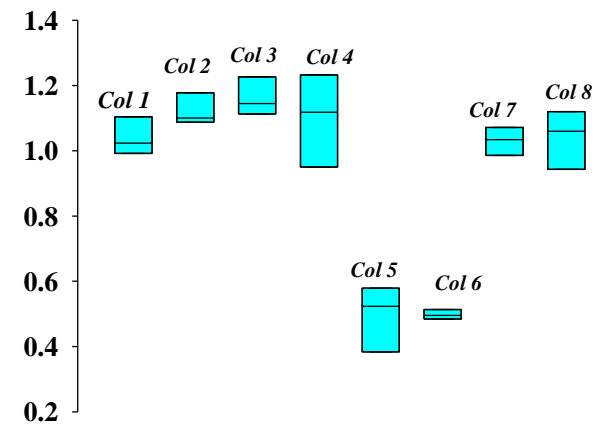
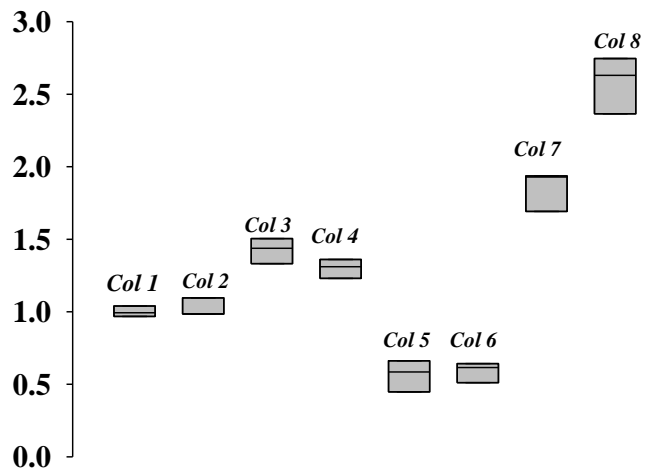
Comparison	Diff of Means	P<0.050
Group 2 vs. Group 1	6.072	Yes
Group 3 vs. Group 1	137.833	Yes
Group 4 vs. Group 1	127.5	Yes
Group 4 vs. Group 3	265.333	Yes



**b** ANT

**c** VDAC

	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)		Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>	Control	+Ca <sup>2+</sup>
	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Mean 1	1.0039	0.8421	0.9488	1.276	0.4563	0.4475	1.9193	1.9456	1.0236	1.0875	1.1129	0.9503	0.3838	0.4844	1.0717	1.12
Mean 2	1.0197	0.9655	1.0534	1.2078	0.5333	0.5344	2.4225	2.4364	1.1042	1.1775	1.2265	1.2327	0.5788	0.4956	0.986	1.0601
Mean 3	0.9764	0.9739	0.8974	1.2017	0.4752	0.5162	2.3444	2.1884	0.992	1.1004	1.1448	1.1183	0.5232	0.5134	1.0339	0.9432



One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

ANT

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0335	No
Col 5 vs. Col 1	0.512	Yes
Col 7 vs. Col 1	1.229	Yes
Col 7 vs. Col 5	1.74	Yes
Col 4 vs. Col 2	0.301	Yes
Col 6 vs. Col 2	0.428	Yes
Col 8 vs. Col 2	1.263	Yes
Col 8 vs. Col 6	1.691	Yes

VDAC

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.121	No
Col 5 vs. Col 1	0.545	Yes
Col 7 vs. Col 1	0.00938	No
Col 7 vs. Col 5	0.535	Yes
Col 4 vs. Col 2	0.0214	No
Col 6 vs. Col 2	0.624	Yes
Col 8 vs. Col 2	0.0807	No
Col 8 vs. Col 6	0.543	Yes

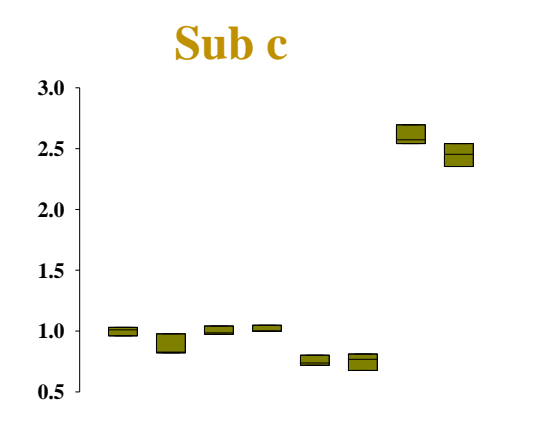
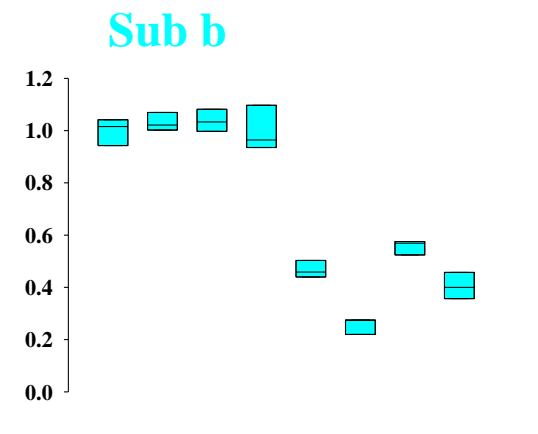
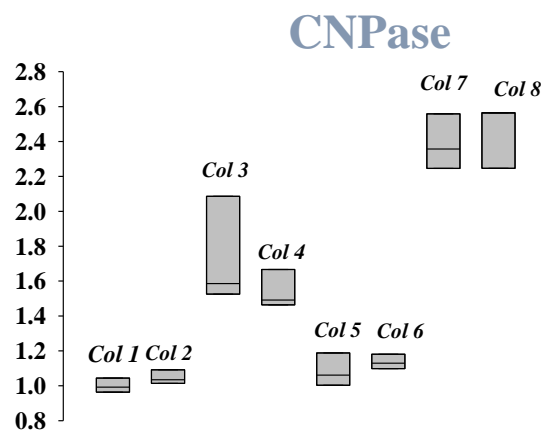


**b** CNPase

**c** Sub b

**d** Sub c

	Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)		Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)		Group 1 (w/o adds)		Group 2 (AST)		Group 3 (ISO)		Group 4 (ISO+AST)	
	Control Col 1	+Ca <sup>2+</sup> Col 2	Control Col 3	+Ca <sup>2+</sup> Col 4	Control Col 5	+Ca <sup>2+</sup> Col 6	Control Col 7	+Ca <sup>2+</sup> Col 8	Control Col 1	+Ca <sup>2+</sup> Col 2	Control Col 3	+Ca <sup>2+</sup> Col 4	Control Col 5	+Ca <sup>2+</sup> Col 6	Control Col 7	+Ca <sup>2+</sup> Col 8	Control Col 1	+Ca <sup>2+</sup> Col 2	Control Col 3	+Ca <sup>2+</sup> Col 4	Control Col 5	+Ca <sup>2+</sup> Col 6	Control Col 7	+Ca <sup>2+</sup> Col 8
Mean 1	1.0441	1.0915	1.5853	1.491	1.003	1.0985	2.5589	2.5631	0.9427	1.0695	1.0331	0.9353	0.4584	0.2197	0.5237	0.3567	1.0299	0.8208	0.9729	0.9999	0.7376	0.8114	2.5417	2.5418
Mean 2	0.9637	1.0139	2.0862	1.6664	1.1881	1.1296	2.3572	2.5647	1.0417	1.002	1.0815	1.0968	0.4393	0.275	0.5693	0.457	1.0097	0.9776	0.9851	1.0478	0.7182	0.6759	2.5727	2.3531
Mean 3	0.9923	1.0344	1.5254	1.4636	1.0609	1.1807	2.2458	2.2465	1.0157	1.0215	0.9968	0.964	0.5029	0.2735	0.5758	0.3999	0.9604	0.8271	1.0413	0.9984	0.8017	0.7677	2.6963	2.4537



One Way Analysis of Variance All Pairwise Multiple Comparison Procedures (Student-Newman-Keuls Method) :

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.732	Yes
Col 5 vs. Col 1	0.084	No
Col 7 vs. Col 1	1.387	Yes
Col 7 vs. Col 5	1.303	Yes
Col 4 vs. Col 2	0.494	Yes
Col 6 vs. Col 2	0.0897	No
Col 8 vs. Col 2	1.412	Yes
Col 8 vs. Col 6	1.322	Yes

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.0371	No
Col 5 vs. Col 1	0.533	Yes
Col 7 vs. Col 1	0.444	Yes
Col 7 vs. Col 5	0.0893	Yes
Col 4 vs. Col 2	0.0323	No
Col 6 vs. Col 2	0.775	Yes
Col 8 vs. Col 2	0.626	Yes
Col 8 vs. Col 6	0.148	Yes

Comparison	Diff of Means	P<0.050
Col 3 vs. Col 1	0.000275	No
Col 5 vs. Col 1	0.248	Yes
Col 7 vs. Col 1	1.604	Yes
Col 7 vs. Col 5	1.851	Yes
Col 4 vs. Col 2	0.14	No
Col 6 vs. Col 2	0.124	Yes
Col 8 vs. Col 2	1.574	Yes
Col 8 vs. Col 6	1.698	Yes