

# **Alkahidroxy (Alka Vita)**

Estudios  
en

**DIABETES**

**COLESTEROL**

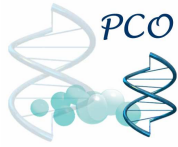
**TRIGLISERIDOS**

**PESO CORPORAL**

Por

**PCO PreClinic Omic, Inc. Lab**

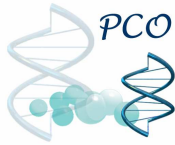
2004



**Study Number:** 04-290-001  
**Date of Study:** 11 Aug - 21 Sep 2004  
**Animals Used in Study:** ZDF-obese males  
**Date of Birth:** 17-Jun-04

### Glucose (mg/dl)

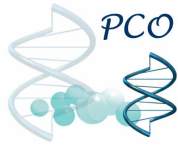
	ANIMAL	12-Aug					13-Aug	16-Aug	18-Aug	23-Aug	30-Aug	7-Sep	13-Sep	20-Sep
		ID	0 TIME	2 HOURS	4 HOURS	6 HOURS	8 HOURS	24 HOURS	DAY 5	DAY 7	DAY 12	DAY 19	DAY 28	DAY 34
Group 1 - RO H2O	101	165	164	163	125	127	146	128	125	195	189	389	435	473
	102	243	195	147	191	179	205	162	163	269	328	485	531	533
	103	214	203	203	175	206	170	199	161	211	169	376	419	522
	<b>MEAN</b>	<b>207.33</b>	<b>187.33</b>	<b>171.00</b>	<b>163.67</b>	<b>170.67</b>	<b>173.67</b>	<b>163.00</b>	<b>149.67</b>	<b>225.00</b>	<b>228.67</b>	<b>416.67</b>	<b>461.67</b>	<b>509.33</b>
	<b>ST DEV</b>	<b>39.43</b>	<b>20.60</b>	<b>28.84</b>	<b>34.43</b>	<b>40.15</b>	<b>29.67</b>	<b>35.51</b>	<b>21.39</b>	<b>38.94</b>	<b>86.60</b>	<b>59.53</b>	<b>60.58</b>	<b>31.94</b>
	<b>SEM</b>	<b>27.88</b>	<b>14.57</b>	<b>20.40</b>	<b>24.34</b>	<b>28.39</b>	<b>20.98</b>	<b>25.11</b>	<b>15.12</b>	<b>27.53</b>	<b>61.24</b>	<b>42.10</b>	<b>42.83</b>	<b>22.59</b>
Group 2 - 0.5% Alka Vita	104	163	197	186	177	221	170	151	148	221	317	488	509	557
	105	333	310	250	159	200	337	208	176	356	386	506	522	554
	106	143	136	155	159	131	154	139	140	255	304	456	488	530
	<b>MEAN</b>	<b>213.00</b>	<b>214.33</b>	<b>197.00</b>	<b>165.00</b>	<b>184.00</b>	<b>220.33</b>	<b>166.00</b>	<b>154.67</b>	<b>277.33</b>	<b>335.67</b>	<b>483.33</b>	<b>506.33</b>	<b>547.00</b>
	<b>ST DEV</b>	<b>104.40</b>	<b>88.29</b>	<b>48.45</b>	<b>10.39</b>	<b>47.09</b>	<b>101.35</b>	<b>36.86</b>	<b>18.90</b>	<b>70.22</b>	<b>44.07</b>	<b>25.32</b>	<b>17.16</b>	<b>14.80</b>
	<b>SEM</b>	<b>73.82</b>	<b>62.43</b>	<b>34.26</b>	<b>7.35</b>	<b>33.29</b>	<b>71.67</b>	<b>26.07</b>	<b>13.37</b>	<b>49.65</b>	<b>31.16</b>	<b>17.91</b>	<b>12.13</b>	<b>10.46</b>
Group 3 - 1.0% Alka Vita	107	231	215	221	173	201	218	157	144	195	113	152	157	195
	108	126	111	117	129	147	129	127	134	137	125	144	133	144
	109	157	140	131	136	146	184	146	143	140	149	187	181	270
	<b>MEAN</b>	<b>171.33</b>	<b>155.33</b>	<b>156.33</b>	<b>146.00</b>	<b>164.67</b>	<b>177.00</b>	<b>143.33</b>	<b>140.33</b>	<b>157.33</b>	<b>129.00</b>	<b>161.00</b>	<b>157.00</b>	<b>203.00</b>
	<b>ST DEV</b>	<b>53.95</b>	<b>53.67</b>	<b>56.44</b>	<b>23.64</b>	<b>31.47</b>	<b>44.91</b>	<b>15.18</b>	<b>5.51</b>	<b>32.65</b>	<b>18.33</b>	<b>22.87</b>	<b>24.00</b>	<b>63.38</b>
	<b>SEM</b>	<b>38.15</b>	<b>37.95</b>	<b>39.91</b>	<b>16.72</b>	<b>22.25</b>	<b>31.76</b>	<b>10.73</b>	<b>3.89</b>	<b>23.09</b>	<b>12.96</b>	<b>16.17</b>	<b>16.97</b>	<b>44.82</b>
Group 4 - 1.5 % Alka Vita	110	130	152	134	136	154	156	135	130	143	153	159	167	209
	111	293	254	179	212	211	249	186	311	397	440	558	576	583
	112	415	386	379	422	386	386	418	440	493	526	573	555	636
	<b>MEAN</b>	<b>279.33</b>	<b>264.00</b>	<b>230.67</b>	<b>256.67</b>	<b>250.33</b>	<b>263.67</b>	<b>246.33</b>	<b>293.67</b>	<b>344.33</b>	<b>373.00</b>	<b>430.00</b>	<b>432.67</b>	<b>476.00</b>
	<b>ST DEV</b>	<b>142.99</b>	<b>117.32</b>	<b>130.42</b>	<b>148.14</b>	<b>120.90</b>	<b>115.70</b>	<b>150.84</b>	<b>155.73</b>	<b>180.85</b>	<b>195.32</b>	<b>234.81</b>	<b>230.31</b>	<b>232.74</b>
	<b>SEM</b>	<b>101.11</b>	<b>82.96</b>	<b>92.22</b>	<b>104.75</b>	<b>85.49</b>	<b>81.81</b>	<b>106.66</b>	<b>110.11</b>	<b>127.88</b>	<b>138.11</b>	<b>166.04</b>	<b>162.86</b>	<b>164.57</b>
Group 5 - 2.0 % Alka Vita	113	274	198	154	148	157	186	183	162	151	158	171	320	444
	114	147	154	171	316	197	166	152	133	138	190	354	385	449
	115	343	346	299	205	337	328	169	139	185	140	398	465	528
	<b>MEAN</b>	<b>254.67</b>	<b>232.67</b>	<b>208.00</b>	<b>223.00</b>	<b>230.33</b>	<b>226.67</b>	<b>168.00</b>	<b>144.67</b>	<b>158.00</b>	<b>162.67</b>	<b>307.67</b>	<b>390.00</b>	<b>473.67</b>
	<b>ST DEV</b>	<b>99.42</b>	<b>100.58</b>	<b>79.27</b>	<b>85.43</b>	<b>94.52</b>	<b>88.33</b>	<b>15.52</b>	<b>15.31</b>	<b>24.27</b>	<b>25.32</b>	<b>120.38</b>	<b>72.63</b>	<b>47.12</b>
	<b>SEM</b>	<b>70.30</b>	<b>71.12</b>	<b>56.05</b>	<b>60.41</b>	<b>66.83</b>	<b>62.46</b>	<b>10.98</b>	<b>10.82</b>	<b>17.16</b>	<b>17.91</b>	<b>85.12</b>	<b>51.36</b>	<b>33.32</b>



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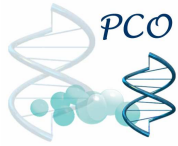
### Cholesterol (mg/dl)

		12-Aug		23-Aug	30-Aug	7-Sep	13-Sep	20-Sep
	ANIMAL ID	0 TIME	8 HOUR	DAY 12	DAY 19	DAY 28	DAY 34	DAY 41
	Group 1 - RO H2O	101	78	66	68	101	115	123
102		73	67	88	104	107	107	120
103		73	67	86	103	116	111	111
<b>MEAN</b>		<b>74.67</b>	<b>66.67</b>	<b>80.67</b>	<b>102.67</b>	<b>112.67</b>	<b>113.67</b>	<b>123</b>
<b>ST DEV</b>		<b>2.89</b>	<b>0.58</b>	<b>11.02</b>	<b>1.53</b>	<b>4.93</b>	<b>8.33</b>	<b>13.75</b>
<b>SEM</b>		<b>2.04</b>	<b>0.41</b>	<b>7.79</b>	<b>1.08</b>	<b>3.49</b>	<b>5.89</b>	<b>9.72</b>
Group 2 - 0.5% Alka Vita	104	66	60	81	95	110	88	116
	105	72	73	96	114	117	114	116
	106	84	68	89	97	110	107	118
	<b>MEAN</b>	<b>74</b>	<b>67</b>	<b>88.67</b>	<b>102</b>	<b>112.33</b>	<b>103</b>	<b>116.67</b>
	<b>ST DEV</b>	<b>9.17</b>	<b>6.56</b>	<b>7.51</b>	<b>10.44</b>	<b>4.04</b>	<b>13.45</b>	<b>1.15</b>
	<b>SEM</b>	<b>6.48</b>	<b>4.64</b>	<b>5.31</b>	<b>7.38</b>	<b>2.86</b>	<b>9.51</b>	<b>0.82</b>
Group 3 - 1.0% Alka Vita	107	72	67	83	97	110	97	92
	108	62	61	87	113	107	107	104
	109	78	67	90	93	103	99	85
	<b>MEAN</b>	<b>70.67</b>	<b>65</b>	<b>86.67</b>	<b>101</b>	<b>106.67</b>	<b>101</b>	<b>93.67</b>
	<b>ST DEV</b>	<b>8.08</b>	<b>3.46</b>	<b>3.51</b>	<b>10.58</b>	<b>3.51</b>	<b>5.29</b>	<b>9.61</b>
	<b>SEM</b>	<b>5.72</b>	<b>2.45</b>	<b>2.48</b>	<b>7.48</b>	<b>2.48</b>	<b>3.74</b>	<b>6.79</b>
Group 4 - 1.5 % Alka Vita	110	78	69	88	91	97	93	93
	111	68	66	85	108	128	142	150
	112	64	63	95	118	131	132	127
	<b>MEAN</b>	<b>70</b>	<b>66</b>	<b>89.33</b>	<b>105.67</b>	<b>118.67</b>	<b>122.33</b>	<b>123.33</b>
	<b>ST DEV</b>	<b>7.21</b>	<b>3</b>	<b>5.13</b>	<b>13.65</b>	<b>18.82</b>	<b>25.89</b>	<b>28.68</b>
	<b>SEM</b>	<b>5.1</b>	<b>2.12</b>	<b>3.63</b>	<b>9.65</b>	<b>13.31</b>	<b>18.31</b>	<b>20.28</b>
Group 5 - 2.0 % Alka Vita	113	70	60	77	90	99	95	101
	114	63	59	91	87	88	105	116
	115	69	68	93	102	118	120	112
	<b>MEAN</b>	<b>67.33</b>	<b>62.33</b>	<b>87</b>	<b>93</b>	<b>101.67</b>	<b>106.67</b>	<b>109.67</b>
	<b>ST DEV</b>	<b>3.79</b>	<b>4.93</b>	<b>8.72</b>	<b>7.94</b>	<b>15.18</b>	<b>12.58</b>	<b>7.77</b>
	<b>SEM</b>	<b>2.68</b>	<b>3.49</b>	<b>6.16</b>	<b>5.61</b>	<b>10.73</b>	<b>8.9</b>	<b>5.49</b>



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		<b>Triglycerides (mg/dl)</b>								
		12-Aug		16-Aug	18-Aug	23-Aug	30-Aug	7-Sep	13-Sep	20-Sep
		<b>ANIMAL ID</b>	<b>0 TIME</b>	<b>8 HOUR</b>	<b>DAY 5</b>	<b>DAY 7</b>	<b>DAY 12</b>	<b>DAY 19</b>	<b>DAY 28</b>	<b>DAY 34</b>
<b>Group 1 - RO H2O</b>	101	256	316	426	440	680	818	1267	952	887
	102	689	683	609	503	683	908	923	1006	767
	103	607	529	600	484	900	850	1078	1397	897
	<b>MEAN</b>	<b>517.33</b>	<b>509.33</b>	<b>545.00</b>	<b>475.67</b>	<b>754.33</b>	<b>858.67</b>	<b>1089.33</b>	<b>1118.33</b>	<b>850.33</b>
	<b>ST DEV</b>	<b>230.01</b>	<b>184.29</b>	<b>103.16</b>	<b>32.32</b>	<b>126.16</b>	<b>45.62</b>	<b>172.28</b>	<b>242.84</b>	<b>72.34</b>
	<b>SEM</b>	<b>162.64</b>	<b>130.31</b>	<b>72.94</b>	<b>22.85</b>	<b>89.21</b>	<b>32.26</b>	<b>121.82</b>	<b>171.71</b>	<b>51.15</b>
<b>Group 2 - 0.5% Alka Vita</b>	104	428	378	388	491	692	1060	1011	753	704
	105	775	922	656	601	1147	1405	1060	953	844
	106	373	448	383	295	599	956	993	997	943
	<b>MEAN</b>	<b>525.33</b>	<b>582.67</b>	<b>475.67</b>	<b>462.33</b>	<b>812.67</b>	<b>1140.33</b>	<b>1021.33</b>	<b>901.00</b>	<b>830.33</b>
	<b>ST DEV</b>	<b>217.96</b>	<b>295.95</b>	<b>156.19</b>	<b>155.00</b>	<b>293.25</b>	<b>235.03</b>	<b>34.67</b>	<b>130.05</b>	<b>120.08</b>
	<b>SEM</b>	<b>154.12</b>	<b>209.27</b>	<b>110.45</b>	<b>109.60</b>	<b>207.36</b>	<b>166.19</b>	<b>24.52</b>	<b>91.96</b>	<b>84.91</b>
<b>Group 3 - 1.0% Alka Vita</b>	107	384	509	383	576	536	854	1055	678	1053
	108	255	435	261	357	427	474	419	523	615
	109	345	347	553	407	638	875	925	1258	952
	<b>MEAN</b>	<b>328.00</b>	<b>430.33</b>	<b>399.00</b>	<b>446.67</b>	<b>533.67</b>	<b>734.33</b>	<b>799.67</b>	<b>819.67</b>	<b>873.33</b>
	<b>ST DEV</b>	<b>66.16</b>	<b>81.10</b>	<b>146.66</b>	<b>114.76</b>	<b>105.52</b>	<b>225.70</b>	<b>336.01</b>	<b>387.44</b>	<b>229.35</b>
	<b>SEM</b>	<b>46.78</b>	<b>57.35</b>	<b>103.70</b>	<b>81.15</b>	<b>74.61</b>	<b>159.59</b>	<b>237.60</b>	<b>273.96</b>	<b>162.18</b>
<b>Group 4 - 1.5 % Alka Vita</b>	110	530	540	317	294	537	948	955	813	1316
	111	580	646	724	666	930	1305	1028	1042	971
	112	552	631	1045	1042	1145	1107	942	1285	853
	<b>MEAN</b>	<b>554.00</b>	<b>605.67</b>	<b>695.33</b>	<b>667.33</b>	<b>870.67</b>	<b>1120.00</b>	<b>975.00</b>	<b>1046.67</b>	<b>1046.67</b>
	<b>ST DEV</b>	<b>25.06</b>	<b>57.36</b>	<b>364.85</b>	<b>374.00</b>	<b>308.31</b>	<b>178.85</b>	<b>46.36</b>	<b>236.03</b>	<b>240.60</b>
	<b>SEM</b>	<b>17.72</b>	<b>40.56</b>	<b>257.98</b>	<b>264.46</b>	<b>218.01</b>	<b>126.47</b>	<b>32.78</b>	<b>166.90</b>	<b>170.13</b>
<b>Group 5 - 2.0 % Alka Vita</b>	113	628	538	616	515	549	856	946	1015	1211
	114	325	316	399	481	762	732	889	1035	1264
	115	565	664	516	563	607	820	983	1107	968
	<b>MEAN</b>	<b>506.00</b>	<b>506.00</b>	<b>510.33</b>	<b>519.67</b>	<b>639.33</b>	<b>802.67</b>	<b>939.33</b>	<b>1052.33</b>	<b>1147.67</b>
	<b>ST DEV</b>	<b>159.88</b>	<b>176.19</b>	<b>108.61</b>	<b>41.20</b>	<b>110.12</b>	<b>63.79</b>	<b>47.35</b>	<b>48.39</b>	<b>157.84</b>
	<b>SEM</b>	<b>113.06</b>	<b>124.59</b>	<b>76.80</b>	<b>29.13</b>	<b>77.87</b>	<b>45.11</b>	<b>33.48</b>	<b>34.22</b>	<b>111.61</b>



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### Body Weight (g)

		11-Aug	12-Aug	18-Aug	25-Aug	1-Sep	8-Sep	15-Sep	20-Sep	
		ANIMAL ID	DAY 0	DAY 1	DAY 7	DAY 14	DAY 21	DAY 28	DAY 35	DAY 40
Group 1 - RO H2O	101	253	258	292	341	361	380	406	417	
	102	256	266	293	331	347	371	373	378	
	103	261	265	290	333	350	374	394	397	
	<b>MEAN</b>	<b>256.67</b>	<b>263.00</b>	<b>291.67</b>	<b>335.00</b>	<b>352.67</b>	<b>375.00</b>	<b>391.00</b>	<b>397.33</b>	
	<b>ST DEV</b>	<b>4.04</b>	<b>4.36</b>	<b>1.53</b>	<b>5.29</b>	<b>7.37</b>	<b>4.58</b>	<b>16.70</b>	<b>19.50</b>	
	<b>SEM</b>	<b>2.86</b>	<b>3.08</b>	<b>1.08</b>	<b>3.74</b>	<b>5.21</b>	<b>3.24</b>	<b>11.81</b>	<b>13.79</b>	
Group 2 - 0.5% Alka Vita	104	268	272	302	351	369	383	384	393	
	105	279	282	306	344	358	373	384	385	
	106	236	242	269	311	325	349	367	376	
	<b>MEAN</b>	<b>261.00</b>	<b>265.33</b>	<b>292.33</b>	<b>335.33</b>	<b>350.67</b>	<b>368.33</b>	<b>378.33</b>	<b>384.67</b>	
	<b>ST DEV</b>	<b>22.34</b>	<b>20.82</b>	<b>20.31</b>	<b>21.36</b>	<b>22.90</b>	<b>17.47</b>	<b>9.81</b>	<b>8.50</b>	
	<b>SEM</b>	<b>15.80</b>	<b>14.72</b>	<b>14.36</b>	<b>15.11</b>	<b>16.19</b>	<b>12.36</b>	<b>6.94</b>	<b>6.01</b>	
Group 3 - 1.0% Alka Vita	107	259	264	296	333	353	381	405	415	
	108	278	256	256	278	287	308	324	341	
	109	242	244	270	310	333	352	378	387	
	<b>MEAN</b>	<b>259.67</b>	<b>254.67</b>	<b>274.00</b>	<b>307.00</b>	<b>324.33</b>	<b>347.00</b>	<b>369.00</b>	<b>381.00</b>	
	<b>ST DEV</b>	<b>18.01</b>	<b>10.07</b>	<b>20.30</b>	<b>27.62</b>	<b>33.84</b>	<b>36.76</b>	<b>41.24</b>	<b>37.36</b>	
	<b>SEM</b>	<b>12.73</b>	<b>7.12</b>	<b>14.35</b>	<b>19.53</b>	<b>23.93</b>	<b>25.99</b>	<b>29.16</b>	<b>26.42</b>	
Group 4 - 1.5 % Alka Vita	110	253	257	284	323	340	371	395	410	
	111	285	290	314	346	360	370	378	391	
	112	238	248	266	284	295	298	299	306	
	<b>MEAN</b>	<b>258.67</b>	<b>265.00</b>	<b>288.00</b>	<b>317.67</b>	<b>331.67</b>	<b>346.33</b>	<b>357.33</b>	<b>369.00</b>	
	<b>ST DEV</b>	<b>24.01</b>	<b>22.11</b>	<b>24.25</b>	<b>31.34</b>	<b>33.29</b>	<b>41.86</b>	<b>51.23</b>	<b>55.38</b>	
	<b>SEM</b>	<b>16.98</b>	<b>15.64</b>	<b>17.15</b>	<b>22.16</b>	<b>23.54</b>	<b>29.60</b>	<b>36.22</b>	<b>39.16</b>	
Group 5 - 2.0 % Alka Vita	113	260	267	288	326	347	379	403	411	
	114	256	259	290	324	354	382	396	400	
	115	246	244	261	296	320	335	346	349	
	<b>MEAN</b>	<b>254.00</b>	<b>256.67</b>	<b>279.67</b>	<b>315.33</b>	<b>340.33</b>	<b>365.33</b>	<b>381.67</b>	<b>386.67</b>	
	<b>ST DEV</b>	<b>7.21</b>	<b>11.68</b>	<b>16.20</b>	<b>16.77</b>	<b>17.95</b>	<b>26.31</b>	<b>31.09</b>	<b>33.08</b>	
	<b>SEM</b>	<b>5.10</b>	<b>8.26</b>	<b>11.45</b>	<b>11.86</b>	<b>12.70</b>	<b>18.61</b>	<b>21.98</b>	<b>23.39</b>	

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