

## Peptide Array, Human Coronavirus 229E (HCoV-229E) Spike (S) Protein

### Catalog No. NR-3010

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**Product Description:** The 195-peptide array spans the spike (S) protein of the human coronavirus 229E (HCoV-229E) (GenPept: NP\_073551). Peptides are 17-mers, with 11 amino acid overlaps.

**Lot: 301106ak\_rl**

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by MALDI-TOF or ESI, or both
- Counter Ion Trifluoroacetate

Peptide-specific information is shown in the two tables below.

Table 1

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydropathy	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
1 of 195	06/06/06	17	1 MFVLLVAYALLHIAGCQ 17	1861.0	1.90	>80.0%	85%
2 of 195	06/06/06	17	7 AYALLHIAGCQTTNGLNLN 23	1758.9	0.39	98.4%	85%
3 of 195	06/06/06	17	13 IAGCQTTNGLNTSYSVC 29	1730.7	0.18	81.2%	90%
4 of 195	06/06/06	17	19 TNGLNTSYSVCNGCVGY 35	1750.7	-0.01	86.9%	90%
5 of 195	06/06/06	17	25 SYSVCNGCVGYSENVFA 41	1797.7	0.35	87.6%	85%
6 of 195	06/06/06	17	31 GCGYSENVFAVESGGY 47	1736.7	0.20	84.8%	85%
7 of 195	06/06/06	17	37 ENVFAVESGGYIPSDFA 53	1800.8	0.16	96.0%	85%
8 of 195	06/06/06	17	43 ESGGYIPSDFAFNNWFL 59	1962.9	-0.10	92.9%	90%
9 of 195	06/06/06	17	49 PSDFAFNNWFLLNTNTSS 65	1959.9	-0.15	93.1%	90%
10 of 195	06/06/06	17	55 NNWFLLNTNTSSVVDGVV 71	1863.9	0.52	87.6%	90%
11 of 195	06/06/06	17	61 TNTSSVVDGVVRSFQPL 77	1804.9	0.15	95.1%	90%
12 of 195	06/06/06	17	67 VDGVVRSFQPLLNCLW 83	1958.0	0.85	88.9%	90%
13 of 195	06/06/06	17	73 SFQPLLNCLWSVSGLRL 89	1932.0	0.69	85.4%	90%
14 of 195	06/06/06	17	79 LNCLWSVSGLRLFTTGFV 95	1899.0	0.89	81.9%	90%
15 of 195	06/06/06	17	85 VSGLRFTTGFVVFNGTG 101	1821.9	0.40	88.1%	90%
16 of 195	06/06/06	17	91 TTGFVVFNGTGRGDCKG 107	1778.8	-0.50	82.6%	80%
17 of 195	06/06/06	17	97 FNGTGRGDCKGFSSDVL 113	1758.8	-0.39	91.6%	90%
18 of 195	06/06/06	17	103 GDCKGFSSDVLSDVIRY 119	1859.9	-0.08	85.9%	85%
19 of 195	06/06/06	17	109 SSDVLSDVIRYLNFEEL 125	1998.9	-0.35	82.3%	90%
20 of 195	06/12/06	17	115 DVIRYNLNFEENLRRGT 131	2108.0	-1.05	93.1%	75%
21 of 195	06/13/06	17	121 LNFEENLRRGTILFKTS 137	2037.1	-0.47	84.5%	80%
22 of 195	06/13/06	17	127 LRRGTILFKTSYGVVVV 143	1955.1	0.77	98.2%	80%
23 of 195	06/13/06	17	133 LFKTSYGVVVFYCTNN 149	1954.9	0.45	93.4%	85%
24 of 195	06/13/06	17	139 GVVFYCTNNLVSGDA 155	1757.8	0.76	>80.0%	85%
25 of 195	06/13/06	17	145 CTNNLVSGDAHIPFGT 161	1745.8	0.04	93.2%	85%
26 of 195	06/13/06	17	151 VSGDAHIPFGTVLGNFY 167	1792.9	0.49	94.6%	90%
27 of 195	06/13/06	17	157 IPFGTVLGNFYCFVNNT 173	1891.9	0.87	85.6%	85%
28 of 195	06/13/06	17	163 LGNFYCFVNNTTIGNETT 179	1892.8	0.10	89.4%	85%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydropathy	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
29 of 195	06/13/06	17	169 FVNNTTIGNETTSASFVGA 185	1727.8	0.42	81.9%	85%
30 of 195	06/13/06	17	175 GNETTSAFGALPKTVR 191	1746.9	-0.12	95.2%	85%
31 of 195	06/13/06	17	181 AFVGALPKTVREFVISR 197	1889.1	0.60	90.7%	85%
32 of 195	06/13/06	17	187 PKTVREFVISRTGHFYI 203	2049.1	-0.12	93.7%	80%
33 of 195	06/13/06	17	193 FVISRTGHFYINGYRYF 209	2139.0	-0.02	86.8%	80%
34 of 195	06/13/06	17	199 GHFYINGYRYFTLGNVE 215	2048.9	-0.35	83.2%	85%
35 of 195	06/13/06	17	205 GYRYFTLGNVEAVNFNV 221	1961.9	0.07	84.5%	90%
36 of 195	06/13/06	17	211 LGNVEAVNFNVTAAETT 227	1778.9	0.12	89.7%	90%
37 of 195	06/13/06	17	217 VNFNVTAAETTDFTVA 233	1831.8	0.40	87.1%	95%
38 of 195	06/13/06	17	223 TAETTDFTVALASYAD 239	1777.8	0.30	>80.0%	90%
39 of 195	06/13/06	17	229 FCTVALASYADVLVNVS 245	1770.9	1.44	>80.0%	75%
40 of 195	06/13/06	17	235 ASYADVLVNVSQTSIAN 251	1750.9	0.46	>80.0%	95%
41 of 195	06/13/06	17	241 LVNVSQTSIANIYCNS 257	1837.9	0.68	>70.0%	90%
42 of 195	06/13/06	17	247 TSIANIIYCNSVINRLR 263	1949.0	0.42	85.7%	90%
43 of 195	06/08/06	17	253 IYCNCSVINRLRCDQLSF 269	2043.0	0.16	85.5%	85%
44 of 195	06/08/06	17	259 INRLRCDQLSFDVPDGF 275	1994.0	-0.29	92.3%	90%
45 of 195	06/13/06	17	265 DQLSFVDVPGFYSTSPI 281	1886.8	-0.23	93.8%	90%
46 of 195	06/13/06	17	271 VPDGFYSTSPIQSVELP 287	1834.9	-0.04	93.4%	90%
47 of 195	06/13/06	17	277 STSPIQSVELPVSIVSL 293	1754.9	0.84	87.9%	85%
48 of 195	06/08/06	17	283 SVELPVSVSLPVYHKH 299	1903.0	0.48	82.7%	80%
49 of 195	06/08/06	17	289 SIVSLPVYHKHTFIVLY 305	2015.1	0.89	84.2%	85%
50 of 195	06/08/06	17	295 VYHKHTFIVLYVDFKPQ 311	2133.1	0.02	84.6%	75%
51 of 195	06/08/06	17	301 FIVLYVDFKPKQSGGGKC 317	1856.9	0.30	81.1%	85%
52 of 195	06/08/06	17	307 DFKPKQSGGGKCFNCYPA 323	1817.8	-0.73	88.4%	90%
53 of 195	06/08/06	17	313 GGGKCFNCYPAGVNITL 329	1712.8	0.35	96.9%	85%
54 of 195	06/13/06	17	319 NCYPAGVNITLANFNET 335	1839.8	-0.05	87.7%	90%
55 of 195	06/13/06	17	325 VNITLANFNETKGPLCV 341	1831.9	0.37	82.5%	85%
56 of 195	06/13/06	17	331 NFNETKGPLCVDTSHFT 347	1908.9	-0.58	93.9%	85%
57 of 195	06/13/06	17	337 GPLCVDTSHFTTKYVAV 353	1836.9	0.39	92.0%	85%
58 of 195	06/13/06	17	343 TSHFTTKYVAVYANVGR 359	1913.0	-0.12	80.2%	80%
59 of 195	06/13/06	17	349 KYVAVYANVGRWSASIN 365	1897.0	0.09	83.6%	75%
60 of 195	06/13/06	17	355 ANVGRWSASINTGNCPI 371	1792.8	-0.18	82.7%	85%
61 of 195	06/13/06	17	361 SASINTGNCPSFGKVN 377	1741.8	-0.08	80.5%	85%
62 of 195	06/13/06	17	367 GNCPFSFGKVNNFKVFG 383	1860.9	0.01	89.7%	85%
63 of 195	06/13/06	17	373 FGKVNKFVKGSVCFSL 389	1891.9	0.76	88.9%	90%
64 of 195	06/13/06	17	379 FVKFGSVCFSLKDIPGG 395	1799.9	0.70	81.5%	85%
65 of 195	06/13/06	17	385 VCFSLKDIPGGCAMPIV 401	1748.8	1.21	85.2%	85%
66 of 195	06/13/06	17	391 DIPGGCAMPIVANWAYS 407	1763.8	0.53	83.7%	80%
67 of 195	06/13/06	17	397 AMPIVANWAYSKYTTIG 413	1946.9	0.28	83.8%	80%
68 of 195	06/13/06	17	403 NWAYSKYYTGSILYVSW 419	2100.0	-0.21	86.6%	75%
69 of 195	06/13/06	17	409 YYTIGSLYVSWSDGDGI 425	1894.8	0.05	80.7%	85%
70 of 195	06/13/06	17	415 LYVSWSDGDGITGPQP 431	1789.8	-0.16	94.4%	85%
71 of 195	06/13/06	17	421 DGDGITGPQPVEGVSS 437	1612.7	-0.24	83.8%	90%
72 of 195	06/13/06	17	427 GVPQPVEGVSSFMNVT 443	1759.9	0.50	86.5%	85%
73 of 195	06/13/06	17	433 EGVSSFMNVTLDKCTKY 449	1920.9	-0.21	90.0%	85%
74 of 195	06/13/06	17	439 MNVTLDKCTKYNIDVS 455	2005.9	-0.32	82.4%	90%
75 of 195	06/13/06	17	445 KCTKYNIDVSGVGVR 461	1914.0	-0.01	89.9%	75%
76 of 195	06/13/06	17	451 IYDVGVGIRVSNDTF 467	1839.9	0.54	95.4%	85%
77 of 195	06/26/06	17	457 VGIVIRVSNDTFLNGITY 473	1867.0	0.52	81.8%	85%
78 of 195	06/26/06	17	463 SNDTFLNGITYTSTSGN 479	1790.8	-0.60	82.7%	90%
79 of 195	06/26/06	17	469 NGITYTSTSGNLLGFKD 485	1786.8	-0.34	89.7%	85%
80 of 195	06/26/06	17	475 STSGNLLGFKDVTKGTI 491	1736.9	-0.04	82.1%	85%

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81 of 195	06/26/06	17	481 LGFKDVTKGTIYSITPC 497	1841.9	0.26	84.8%	85%
82 of 195	07/04/06	17	487 TKGTIYSITPCNPPDQL 503	1846.9	-0.50	92.2%	90%
83 of 195	07/04/06	17	493 SITPCNPPDQLVVYQQA 509	1871.9	-0.24	90.1%	90%
84 of 195	07/04/06	17	499 PPDQLVYQQAVVGAML 515	1827.0	0.65	88.8%	90%
85 of 195	07/04/06	17	505 VYQQAVVGAMLSENFTS 521	1842.9	0.39	>80.0%	85%
86 of 195	07/04/06	17	511 VGAMLSENFTSYGFSNV 527	1821.8	0.34	91.7%	90%
87 of 195	07/04/06	17	517 ENFTSYGFSNVVELPKF 533	1976.9	-0.17	98.7%	80%
88 of 195	07/04/06	17	523 GFSNVVELPKFFYASNG 539	1874.9	0.16	90.0%	85%
89 of 195	07/04/06	17	529 ELPKFFYASNGTYNCTD 545	1968.8	-0.65	89.3%	90%
90 of 195	07/04/06	17	535 YASNGTYNCTDAVLTYS 551	1841.8	-0.26	85.2%	85%
91 of 195	07/04/06	17	541 YNCTDAVLTYSSFGVCA 557	1812.8	0.62	>80.0%	85%
92 of 195	07/04/06	17	547 VLTYSSFGVCADGSIIA 563	1701.8	1.26	97.7%	85%
93 of 195	07/04/06	17	553 FGVCADGSIIAVQPRNV 569	1744.9	0.72	80.0%	80%
94 of 195	07/04/06	17	559 GSIAAVQPRNVSYDSVS 575	1790.9	0.11	81.4%	85%
95 of 195	07/04/06	17	564 VQPRNVSYDSVSAIVTA 580	1804.9	0.23	95.3%	85%
96 of 195	07/04/06	17	570 SYDSVSAIVTANLIPS 586	1722.8	0.60	92.0%	85%
97 of 195	07/04/06	17	576 AIVTANLIPSNSWTTSV 592	1772.9	0.64	94.8%	85%
98 of 195	07/04/06	17	582 LSIPSNWTTSVQVEYLQ 598	1964.0	-0.06	80.6%	75%
99 of 195	07/04/06	17	588 WTTSVQVEYLQTSTPI 604	1965.0	0.15	>80.0%	85%
100 of 195	07/04/06	17	594 VEYLQTSTPIVDCST 610	1866.9	0.64	81.8%	85%
101 of 195	07/04/06	17	600 TSTPIVVDCCSTYVCNGN 616	1771.8	0.27	81.6%	90%
102 of 195	07/04/06	17	606 VDCSTYVCNGNVRCVEL 622	1872.8	0.38	81.2%	85%
103 of 195	06/23/06	17	612 VCNGNVRCVELLKQYTS 628	1924.9	-0.02	91.3%	95%
104 of 195	06/23/06	17	618 RCVELLKQYTSACKTIE 634	1984.0	-0.19	94.0%	85%
105 of 195	06/23/06	17	624 KQYTSACKTIEDALRNS 640	1926.9	-0.95	92.0%	85%
106 of 195	06/23/06	17	630 CKTIEDALRNSARLESA 646	1875.9	-0.54	86.5%	85%
107 of 195	06/23/06	17	636 ALRNSARLESADVSEML 652	1860.9	-0.15	84.3%	85%
108 of 195	06/23/06	17	642 RLESADVSEMLTFDKKA 658	1939.0	-0.50	87.3%	85%
109 of 195	06/23/06	17	648 VSEMLTFDKKAFTLANV 664	1913.0	0.39	85.1%	85%
110 of 195	06/23/06	17	654 FDKKAFTLANVSSFGDY 670	1908.9	-0.14	91.9%	85%
111 of 195	06/23/06	17	660 TLANVSSFGDYNLSSVI 676	1785.9	0.53	91.3%	85%
112 of 195	06/23/06	17	666 SFGDYNLSSVIPSLPTS 682	1782.8	0.15	82.1%	75%
113 of 195	07/04/06	17	672 LSSVIPSLPTSGSRVAG 688	1626.9	0.54	81.5%	80%
114 of 195	06/08/06	17	678 SLPTSGSRVAGRSAIED 694	1701.8	-0.36	87.1%	90%
115 of 195	07/04/06	17	684 SRVAGRSAIEDILFSKL 700	1861.0	0.26	88.5%	80%
116 of 195	07/04/06	17	690 SAIEDILFSKLVTSGLG 706	1748.9	0.85	88.8%	90%
117 of 195	07/04/06	17	696 LFSKLVTSGLGTVDADY 712	1784.9	0.49	84.8%	80%
118 of 195	07/04/06	17	702 TSGLGTVDADYKKCTKG 718	1742.8	-0.69	84.7%	80%
119 of 195	07/04/06	17	708 VDADYKKCTKGLSIADL 724	1838.9	-0.18	84.4%	80%
120 of 195	07/04/06	17	714 KCTKGLSIADLACAQYY 730	1846.9	0.19	92.7%	90%
121 of 195	06/23/06	17	720 SIADLACAQYYNGIMVL 736	1843.9	0.96	85.5%	85%
122 of 195	06/23/06	17	726 CAQYYNGIMVLPGVADA 742	1783.8	0.65	81.2%	85%
123 of 195	06/23/06	17	732 GIMVLPGVADAERMAMY 748	1822.9	0.74	99.0%	85%
124 of 195	06/23/06	17	738 GVADAERMAMYTGSLIG 754	1740.8	0.36	86.5%	90%
125 of 195	06/23/06	17	744 RMAMYTGSLLGGIALGG 760	1666.8	0.86	91.4%	90%
126 of 195	06/23/06	17	750 GSLIGGIALGGLTSAVS 766	1471.8	1.36	88.1%	90%
127 of 195	06/23/06	17	756 IALGGGLTSAVSIPFSLA 772	1615.9	1.61	84.7%	85%
128 of 195	06/23/06	17	762 TSAVSIPFSLAIQARLN 778	1787.0	0.75	80.8%	85%
129 of 195	06/23/06	17	768 PFSLAIQARLNVALQT 784	1904.0	0.52	97.0%	75%
130 of 195	06/23/06	17	773 IQARLNVALQTDVLQE 789	1973.0	0.02	86.7%	90%
131 of 195	06/23/06	17	779 YVALQTDVLQENQKILA 795	1945.0	0.06	88.0%	85%
132 of 195	06/23/06	17	785 DVLQENQKILAASFNKA 801	1888.0	-0.30	81.6%	85%

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133 of 195	07/04/06	17	790 NQKILAASFNKAMTNIV 806	1862.0	0.22	80.8%	90%
134 of 195	07/04/06	17	796 ASFNKAMTNIVDAFTGV 812	1784.9	0.52	91.3%	95%
135 of 195	07/04/06	17	802 MTNIVDAFTGVNDAITQ 818	1808.9	0.34	87.3%	90%
136 of 195	07/04/06	17	808 AFTGVNDAITQTSQALQ 824	1763.9	-0.01	90.4%	90%
137 of 195	06/08/06	17	814 DAITQTSQALQTVALT 830	1730.9	0.35	90.8%	95%
138 of 195	06/08/06	17	820 SQALQTVATALNKIQDV 836	1799.0	0.14	82.8%	95%
139 of 195	06/08/06	17	826 VATALNKIQDV/VNQQGN 842	1810.9	-0.29	92.3%	90%
140 of 195	06/08/06	17	832 KIQDVVNQQGNSLNHLT 848	1907.0	-0.76	80.4%	75%
141 of 195	07/04/06	17	838 NQQGNSLNHLTSQLRQN 854	1950.9	-1.59	83.6%	95%
142 of 195	06/08/06	17	844 LNHLTSQLRQNQFQAIS 860	1956.0	-0.46	80.6%	95%
143 of 195	06/08/06	17	849 SQRQNQFQAISSIQAI 865	1890.0	-0.09	90.9%	90%
144 of 195	07/04/06	17	855 FQAISSSIQAIYDRLDT 871	1927.0	0.05	84.6%	85%
145 of 195	06/08/06	17	861 SIQAIYDRLTIQADQQ 877	1977.0	-0.64	93.6%	90%
146 of 195	06/08/06	17	867 DRDLTIQADQQVDRLLT 883	1999.0	-0.72	86.7%	90%
147 of 195	06/08/06	17	872 IQADQQVDRLLTITGRLAA 888	1867.0	-0.08	94.0%	90%
148 of 195	06/08/06	17	878 VDRLITGRLAALNVFVS 894	1843.1	1.00	93.9%	85%
149 of 195	06/08/06	17	884 GRLAALNVFVSHTLTKY 900	1889.0	0.42	81.8%	85%
150 of 195	06/08/06	17	890 NVFVSHTLTKYTEVRAS 906	1951.0	-0.15	87.9%	80%
151 of 195	06/08/06	17	896 TLTKYTEVRASRQLAQ 912	1992.1	-0.92	84.6%	75%
152 of 195	06/08/06	17	902 EVRASRQLAQKVKNECV 918	1957.0	-0.72	85.0%	80%
153 of 195	06/08/06	17	907 RQLAQKVKNECVKSQSK 923	1973.0	-1.31	86.4%	85%
154 of 195	06/08/06	17	913 KVNECVKSQSCKRYGFCG 929	1931.9	-0.84	96.4%	85%
155 of 195	06/08/06	17	919 KSQSKRYGFCGNGTHIF 935	1928.9	-0.86	80.1%	85%
156 of 195	06/08/06	17	925 YGFCGNGTHIFSIVNAA 941	1769.8	0.63	83.0%	90%
157 of 195	06/08/06	17	931 GTHIFSIVNAAPEGLVF 947	1770.9	0.96	80.6%	85%
158 of 195	06/08/06	17	937 IVNAAPEGLVFLHTVLL 953	1805.0	1.52	84.4%	85%
159 of 195	06/08/06	17	943 EGLVFLHTVLLPTQYKD 959	1972.0	0.24	81.5%	75%
160 of 195	06/08/06	17	949 HTVLLPTQYKDVEAWSG 965	1943.0	-0.36	80.3%	90%
161 of 195	06/08/06	17	955 TQYKDVEAWSGLCVDGT 971	1870.8	-0.39	81.0%	85%
162 of 195	06/08/06	17	961 EAWSGLCVDGTNGYVLR 977	1838.8	0.02	88.2%	90%
163 of 195	06/08/06	17	967 CVDGTNGYVLRQPNLAL 983	1831.9	0.07	88.0%	95%
164 of 195	06/08/06	17	973 GYVLRQPNLALYKEGNY 989	1997.0	-0.66	84.3%	90%
165 of 195	06/08/06	17	979 PNLLALYKEGNYYRITSR 995	2057.0	-0.99	84.6%	85%
166 of 195	06/08/06	17	985 KEGNYYRITSRIMFEPR 1001	2159.1	-1.19	99.2%	80%
167 of 195	06/08/06	17	991 RITSRIMFEPRIPTMAD 1007	2033.0	-0.24	86.0%	80%
168 of 195	06/08/06	17	997 MFEPRIPTMADFVQIEN 1013	2037.0	-0.09	86.4%	90%
169 of 195	07/04/06	17	1003 PTMADFVQIENCNVTFV 1019	1926.9	0.49	>80.0%	85%
170 of 195	07/04/06	17	1009 VQIENCNVTFVNISRSE 1025	1950.9	-0.05	81.5%	90%
171 of 195	07/04/06	17	1015 NVTFVNISRSELQTVIP 1031	1916.0	0.30	87.0%	90%
172 of 195	06/08/06	17	1021 ISRSELQTVPEYIDVN 1037	1975.0	-0.09	82.9%	90%
173 of 195	06/08/06	17	1026 LQTIVPEYIDVNKTQLQE 1042	2002.0	-0.25	87.1%	90%
174 of 195	05/30/06	17	1032 EYIDVNKTQLQELSYKLP 1048	2052.0	-0.64	92.1%	90%
175 of 195	05/30/06	17	1038 KTLQELSYKLPNYTPD 1054	2008.0	-0.84	94.7%	90%
176 of 195	05/30/06	17	1044 SYKLPNYTPVPDFLVQEY 1060	2027.0	-0.37	83.1%	90%
177 of 195	05/30/06	17	1050 YTPPDFLVQEYNQTLIN 1066	2008.0	-0.11	80.3%	75%
178 of 195	05/30/06	17	1056 VVEQYNQTLNLNTSEIS 1072	1950.0	-0.02	90.4%	75%
179 of 195	05/30/06	17	1061 NQTLNLNTSEISTLENK 1077	1917.0	-0.48	83.0%	90%
180 of 195	05/30/06	17	1067 LTSEISTLENKSAELNY 1083	1910.9	-0.52	90.0%	90%
181 of 195	05/30/06	17	1073 TLENKSAELNYTVQKLQ 1089	1978.0	-0.88	89.5%	85%
182 of 195	05/30/06	17	1079 AELNYTVQKLQTLIDNI 1095	1975.0	-0.07	87.7%	75%
183 of 195	05/30/06	17	1085 VQKLQTLIDNINSTLVD 1101	1913.0	0.10	81.7%	90%
184 of 195	05/30/06	17	1091 LIDNINSTLVDLKWLNR 1107	2026.1	0.01	87.2%	85%

Table 1

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydropathy	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
185 of 195	06/08/06	17	1097 STLVDLKWLNRVETYIK 1113	2077.1	-0.17	80.1%	75%
186 of 195	06/08/06	17	1103 KWLRNVRVETYIKWPWWVV 1119	2389.2	-0.63	92.2%	85%
187 of 195	06/08/06	17	1109 ETYIKWPWWVLICSVV 1125	2207.1	0.74	84.9%	75%
188 of 195	06/08/06	17	1115 PWWVWLICSVVLIFVVS 1131	2045.1	2.18	>70.0%	70%
189 of 195	06/08/06	17	1121 CISVVLIFVVSMLLCC 1137	1854.0	3.04	>70.0%	70%
190 of 195	05/30/06	17	1127 IFVVSMLLCCCSTGCC 1143	1793.8	2.28	>80.0%	70%
191 of 195	05/30/06	17	1133 LLLCCCSTGCCGFFSCF 1149	1805.7	1.86	>80.0%	85%
192 of 195	05/30/06	17	1139 STGCCGFFSCFASSIRG 1155	1728.7	0.74	85.9%	90%
193 of 195	05/30/06	17	1145 FFSCFASSIRGCCESTK 1161	1871.8	0.35	83.7%	85%
194 of 195	05/30/06	17	1151 SSIRGCCESTKLPPYYDV 1167	1919.8	-0.33	84.5%	85%
195 of 195	05/30/06	17	1157 CESTKLPPYYDVEKIHIQ 1173	2065.0	-0.66	81.5%	75%

<sup>a</sup>% full-length

<sup>b</sup>Remainder is salt and water

**Note:** Actual amino acid results which are not within 30% of expected results are highlighted in red.

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
1 of 195	Expected	3.00			1.00	1.00	1.00	1.00	1.00	4.00		1.00	1.00					1.00	2.00
	Actual	2.70			0.80	0.90	0.80	0.90	0.90	3.20		0.70	0.80					0.80	1.50
2 of 195	Expected	3.00		2.00	1.00	1.00	2.00	1.00	1.00	3.00							2.00	1.00	
	Actual	2.60		1.80	0.80	0.80	1.80	0.90	0.90	2.60							1.50	0.80	
3 of 195	Expected	1.00		2.00	2.00	1.00	2.00		1.00	1.00						2.00	3.00	1.00	1.00
	Actual	0.90		1.80	1.50	0.90	1.80		0.90	0.90						1.50	2.60	0.90	0.90
4 of 195	Expected			3.00	2.00			3.00			1.00					2.00	2.00	2.00	2.00
	Actual			2.70	1.70			2.60			0.90					1.80	1.70	1.80	1.80
5 of 195	Expected	1.00		2.00	2.00	1.00	2.00						1.00			3.00		2.00	3.00
	Actual	0.90		1.80	1.70	0.90	1.60						0.90			2.10		1.70	2.50
6 of 195	Expected	1.00		1.00	1.00	2.00	4.00						1.00			2.00		2.00	3.00
	Actual	0.90		0.90	0.80	1.80	3.30						0.90			1.40		1.40	2.70
7 of 195	Expected	2.00		2.00	2.00	2.00	2.00		1.00				2.00	1.00	2.00			1.00	2.00
	Actual	1.70		1.70	1.80	1.60	0.80						1.70	0.90	1.40			0.80	1.80
8 of 195	Expected	1.00		3.00		1.00	2.00		1.00	1.00			3.00	1.00	2.00		1.00	1.00	
	Actual	0.90		2.70		0.90	1.80		0.90	0.90			2.70	0.90	1.80		0.80	0.90	
9 of 195	Expected	1.00		4.00						2.00			3.00	1.00	3.00	2.00	1.00		
	Actual	0.90		3.60						1.80			2.70	0.90	2.30	1.60	0.70		
10 of 195	Expected			4.00			1.00			2.00			1.00		2.00	2.00	1.00		4.00
	Actual			3.70			0.90			1.80			0.90		1.70	1.70	0.70		3.70
11 of 195	Expected			1.00	2.00		1.00	1.00			1.00			1.00	1.00	3.00	2.00		
	Actual			0.90	1.80		0.90	0.90			0.90			0.90	0.90	2.70	1.60		3.60
12 of 195	Expected			1.00	2.00	1.00	1.00	1.00			4.00			1.00	1.00	1.00		1.00	3.00
	Actual			0.90	1.80	0.80	0.90	0.90			3.60			0.90	0.90	0.70		0.70	2.70
13 of 195	Expected			1.00	1.00	1.00	1.00	1.00			5.00			1.00	1.00	3.00	1.00		1.00
	Actual			0.90	0.90	0.80	0.90	0.90			4.40			0.90	0.90	2.70	0.80		0.90
14 of 195	Expected			1.00	1.00	1.00		2.00			3.00			2.00		2.00	2.00	1.00	
	Actual			0.90	0.90	0.80		1.80			2.60			1.80		1.60	1.70	0.80	
15 of 195	Expected			1.00	1.00			4.00			1.00			3.00		1.00	3.00		1.00
	Actual			0.90	0.90			3.60			0.90			2.70		0.90	2.70		1.80
16 of 195	Expected			1.00	2.00	1.00		5.00			1.00			2.00			3.00	1.00	1.00
	Actual			0.90	1.80	0.80		4.50			0.90			1.70			2.40	0.70	0.90
17 of 195	Expected			1.00	3.00	1.00		4.00			1.00	1.00		2.00		2.00	1.00		1.00
	Actual			0.90	2.80	0.80		3.60			0.90	0.90		1.80		1.80	0.80		0.90

# Certificate of Analysis for NR-3010

		Table 2 - Amino Acid Analysis																		
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)	
18 of 195	Expected		1.00	3.00	1.00		2.00		1.00	1.00	1.00		1.00		3.00			1.00	2.00	
	Actual		0.90	2.80	0.80		1.70		0.70	0.90	0.80		0.90		2.70			0.90	2.60	
19 of 195	Expected		1.00	4.00		2.00			1.00	2.00			1.00		3.00			1.00	2.00	
	Actual		0.90	3.60		1.80			0.70	1.80			0.90		2.70			0.80	1.80	
20 of 195	Expected		3.00	4.00		2.00	1.00		1.00	2.00			1.00			1.00	1.00	1.00	1.00	
	Actual		2.30	3.10		1.80	0.80		0.70	1.70			0.80			0.80	0.80	0.80	0.70	
21 of 195	Expected		2.00	2.00		2.00	1.00		1.00	3.00	1.00		2.00		1.00	2.00				
	Actual		1.80	1.50		1.50	0.90		0.80	2.50	0.90		1.60		0.80	1.60				
22 of 195	Expected		2.00			2.00			1.00	2.00	1.00		2.00		1.00	2.00		1.00	3.00	
	Actual		1.70			1.50			0.80	1.60	0.80		1.60		0.70	1.50		0.80	2.30	
23 of 195	Expected			2.00	1.00		1.00			1.00	1.00		2.00		1.00	3.00		2.00	3.00	
	Actual			1.80	0.80		0.90			0.80	0.80		1.60		0.60	2.30		1.60	2.70	
24 of 195	Expected	1.00		3.00	1.00		2.00			1.00			1.00		1.00	2.00		1.00	4.00	
	Actual	0.90		2.70	0.80		1.60			0.90			0.90		0.70	1.60		0.80	3.20	
25 of 195	Expected	1.00		3.00	1.00		2.00	1.00	1.00	1.00			1.00	1.00	1.00	3.00			1.00	
	Actual	0.90		2.70	0.80		1.80	0.90	0.80	0.80			0.90	0.90	0.90	2.50			0.90	
26 of 195	Expected	1.00		2.00			3.00	1.00	1.00	1.00			2.00	1.00	1.00	1.00		1.00	2.00	
	Actual	0.90		1.80			2.70	0.90	0.90	0.90			1.80	0.90	0.70	0.90		0.90	1.80	
27 of 195	Expected			2.00	1.00		2.00		1.00	1.00			3.00	1.00		3.00		1.00	2.00	
	Actual			1.80	0.80		1.80		0.80	0.90			2.70	0.90		2.70		0.90	1.80	
28 of 195	Expected			3.00	1.00	1.00	2.00		1.00	1.00			2.00			4.00		1.00	1.00	
	Actual			2.70	0.80	0.90	1.70		0.90	0.90			1.80			3.20		0.80	0.90	
29 of 195	Expected	2.00		2.00		1.00	2.00		1.00				2.00		1.00	4.00			2.00	
	Actual	1.80		1.80		0.90	1.80		0.90				1.80		0.70	3.30			1.70	
30 of 195	Expected	2.00	1.00	1.00		1.00	2.00			1.00	1.00		1.00	1.00	1.00	3.00			2.00	
	Actual	1.70	0.90	0.80		0.90	1.60			0.80	0.80		0.90	0.90	0.70	2.40			1.70	
31 of 195	Expected	2.00	2.00			1.00	1.00		1.00	1.00	1.00		2.00	1.00	1.00	1.00			3.00	
	Actual	1.80	1.70			0.90	0.80		0.80	0.90	0.90		1.80	0.90	0.70	0.90			2.50	
32 of 195	Expected		2.00			1.00	1.00	1.00	2.00		1.00		2.00	1.00	1.00	2.00		1.00	2.00	
	Actual		1.60			0.80	0.70	0.80	1.60		0.80		1.60	0.70	0.70	1.50		0.80	1.60	
33 of 195	Expected	2.00	1.00			2.00	1.00	2.00					3.00		1.00	1.00		3.00	1.00	
	Actual	1.70	0.90			1.60	0.80	1.60					2.50		0.70	0.80		2.40	0.80	
34 of 195	Expected	1.00	2.00			1.00	3.00	1.00	1.00	1.00	1.00		2.00			1.00		3.00	1.00	
	Actual	0.90	1.70			0.90	2.60	0.80	0.80	0.90	0.90		1.50			0.80		2.30	0.90	
35 of 195	Expected	1.00	1.00	3.00		1.00	2.00			1.00			2.00			1.00		2.00	3.00	
	Actual	0.90	0.90	2.80		0.90	1.80			0.90			1.90			0.90		1.80	2.90	
36 of 195	Expected	2.00		3.00		2.00	1.00			1.00			1.00			4.00			3.00	
	Actual	1.80		2.50		1.80	0.90			0.90			0.80			3.60			2.70	
37 of 195	Expected	2.00		3.00	1.00	1.00							2.00			5.00			3.00	
	Actual	1.90		2.70	0.80	0.90							1.80			4.70			2.90	
38 of 195	Expected	4.00		2.00	1.00	1.00				1.00			1.00		1.00	4.00		1.00	1.00	
	Actual	3.60		1.80	0.80	0.90				0.90			0.90		0.80	3.20		0.90	0.90	
39 of 195	Expected	3.00		2.00	1.00					2.00			1.00		2.00	1.00		1.00	4.00	
	Actual	2.70		1.80	0.70					1.70			0.70		1.50	0.70		0.80	3.60	
40 of 195	Expected	3.00		3.00	0.00	1.00			1.00	1.00					3.00	1.00		1.00	3.00	
	Actual	2.80		2.80	0.00	0.90			0.90	0.90					2.60	0.90		0.90	2.80	
41 of 195	Expected	1.00		3.00	1.00	1.00			3.00	1.00					3.00	1.00		1.00	2.00	
	Actual	0.90		2.70	0.80	0.90			2.70	0.90					2.60	0.90		0.90	1.80	
42 of 195	Expected	1.00	2.00	3.00	1.00				4.00	1.00					2.00	1.00		1.00	1.00	
	Actual	0.90	1.80	2.70	0.80				3.30	0.90					1.70	0.90		0.90	0.90	
43 of 195	Expected		2.00	3.00	2.00	1.00			2.00	2.00			1.00		2.00			1.00	1.00	
	Actual		1.80	2.80	1.50	0.90			1.70	1.80			0.90		1.50			0.80	0.90	
44 of 195	Expected		2.00	4.00	1.00	1.00	1.00		1.00	2.00			2.00	1.00	1.00				1.00	
	Actual		1.80	3.60	0.70	0.90	0.80		0.80	1.80			1.80	0.90	0.90				0.90	
45 of 195	Expected			3.00		1.00	1.00		1.00	1.00			2.00	2.00	3.00	1.00		1.00	1.00	
	Actual			2.70		0.90	0.90		0.90	0.90			1.80	1.80	2.60	0.90		0.90	0.90	
46 of 195	Expected			1.00		2.00	1.00		1.00	1.00			1.00	3.00	3.00	1.00		1.00	2.00	
	Actual			0.90		1.80	0.80		0.90	0.90			0.90	2.70	2.10	0.80		0.80	1.80	

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# Certificate of Analysis for NR-3010

		Table 2 - Amino Acid Analysis																		
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)	
47 of 195	Expected					2.00			2.00	2.00				2.00	5.00	1.00				3.00
	Actual					1.80			1.60	1.80				1.80	4.50	0.70				2.70
48 of 195	Expected					1.00		2.00	1.00	2.00	1.00			2.00	3.00			1.00	4.00	
	Actual					0.90		1.60	0.70	1.60	0.80			1.70	2.40			0.80	3.20	
49 of 195	Expected							2.00	2.00	2.00	1.00		1.00	1.00	2.00	1.00		2.00	3.00	
	Actual							1.70	1.30	1.70	0.90		0.90	0.90	1.50	0.90		1.70	2.20	
50 of 195	Expected					1.00	1.00		2.00	1.00	1.00	2.00		2.00	1.00		1.00	2.00	3.00	
	Actual					0.80	0.80		1.50	0.70	0.80	1.60		1.60	0.80		0.70	1.60	2.40	
51 of 195	Expected					1.00	1.00	1.00	3.00		1.00	1.00	2.00		2.00	1.00	1.00		1.00	2.00
	Actual					0.90	0.80	0.90	2.50		0.70	0.90	1.70		1.80	0.90	0.80		0.90	1.80
52 of 195	Expected	1.00				2.00	2.00	1.00	3.00				2.00		2.00	2.00	1.00		1.00	
	Actual	0.90				1.80	1.50	0.90	2.70				1.80		1.80	1.80	0.90		0.90	
53 of 195	Expected	1.00				2.00	2.00		4.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	
	Actual	0.90				1.80	1.50		3.60		0.80	0.90	0.80		0.90	0.90		0.80	0.80	
54 of 195	Expected	2.00				4.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00		2.00	1.00	
	Actual	1.80				3.60	0.80	0.90	0.90		0.90	0.90			0.90	0.90		1.70	0.80	
55 of 195	Expected	1.00				3.00	1.00	1.00	1.00		1.00	2.00	1.00		1.00	1.00		2.00		
	Actual	0.80				2.50	0.80	0.90	0.80		0.80	1.70	0.80		0.80	0.90		1.50		
56 of 195	Expected					3.00	1.00	1.00	1.00	1.00			1.00	1.00		2.00	1.00	3.00		
	Actual					2.60	0.80	0.90	0.90	0.80			0.80	0.80		1.50	0.90	0.90	2.50	
57 of 195	Expected	1.00				1.00	1.00		1.00	1.00			1.00	1.00	1.00	3.00		1.00	3.00	
	Actual	0.90				0.90	0.80		0.80	0.80			0.80	0.90	0.80	2.50		0.80	2.70	
58 of 195	Expected	2.00	1.00			1.00	1.00		1.00				1.00	1.00		1.00	3.00	2.00	3.00	
	Actual	1.80	0.80			0.70	0.80						0.90	0.80		0.80	2.40	1.60	2.60	
59 of 195	Expected	3.00	1.00	2.00			1.00		1.00						2.00		1.00	2.00	3.00	
	Actual	2.70	0.90	1.80			0.90		0.90						1.70		0.80	1.60	2.60	
60 of 195	Expected	2.00	1.00	3.00	1.00		2.00		1.00						1.00	1.00	2.00	1.00	1.00	
	Actual	1.60	0.90	2.70	0.80		1.60		0.90						0.90	0.90	1.50	0.80	0.70	
61 of 195	Expected	1.00				3.00	1.00		2.00		1.00		1.00		2.00	1.00	3.00	1.00		
	Actual	0.90				2.70	0.70		1.80		0.80		0.90		1.80	0.90	2.60	0.90		
62 of 195	Expected					3.00	1.00		3.00				2.00		4.00	1.00	1.00		2.00	
	Actual					2.70	0.80		2.70				1.80		3.50	0.90	0.90		1.80	
63 of 195	Expected					2.00	1.00		2.00				1.00	2.00		4.00	2.00		3.00	
	Actual					1.80	0.80		1.80				0.90	1.80		3.70	1.50		2.70	
64 of 195	Expected					1.00	1.00		3.00		1.00	1.00	2.00		3.00	1.00	2.00		2.00	
	Actual					0.90	0.70		2.70		0.80	0.90	1.80		2.70	0.80	1.60		1.80	
65 of 195	Expected	1.00				1.00	2.00		2.00		2.00	1.00	1.00	1.00	1.00	2.00			2.00	
	Actual	0.90				0.90	1.60		1.70		1.70	0.80	0.90	0.80	0.90	1.70			1.70	
66 of 195	Expected	3.00				2.00	1.00		2.00		2.00				1.00	2.00		1.00	1.00	
	Actual	2.70				1.60	0.70		1.60		1.50				0.70	1.80	0.70	0.80	0.80	
67 of 195	Expected	3.00				1.00			2.00		1.00	1.00			1.00	1.00	1.00	1.00	3.00	
	Actual	2.60				0.80			1.60		0.80	0.70			0.80	0.70	0.80	0.80	2.40	
68 of 195	Expected	1.00				1.00			1.00		1.00	1.00				3.00	1.00	2.00	4.00	
	Actual	0.80				0.70			0.90		0.80	0.80	0.70			2.10	0.80	1.20	2.90	
69 of 195	Expected					2.00			3.00		2.00	1.00				3.00	1.00	1.00	3.00	
	Actual					1.90			2.70		1.80	0.90				2.40	0.80	0.70	2.40	
70 of 195	Expected					2.00	1.00		3.00		1.00	1.00				2.00	2.00	1.00	1.00	
	Actual					1.80	0.90		2.60		0.90	0.80				1.80	1.40	0.90	0.70	
71 of 195	Expected					2.00	2.00		4.00		1.00					2.00	2.00	1.00	3.00	
	Actual					1.80	1.90		3.80		0.90					1.80	1.60	0.90		
72 of 195	Expected					1.00	2.00		2.00				1.00		1.00	2.00	2.00	1.00	4.00	
	Actual					0.90	1.80		1.70		0.90				0.70	1.80	1.60	0.80	3.60	
73 of 195	Expected					2.00	1.00		1.00				1.00	2.00	1.00	1.00	2.00	2.00	2.00	
	Actual					1.80	0.80		0.90				0.90	1.70	0.80	0.90	1.60	1.70	0.80	
74 of 195	Expected					4.00	1.00				1.00	1.00		2.00	1.00		1.00	2.00	2.00	
	Actual					3.60	0.80				0.90	0.90		1.80	0.80		0.90	1.70	1.80	

# Certificate of Analysis for NR-3010

		Table 2 - Amino Acid Analysis																		
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)	
75 of 195	Expected		1.00	2.00	1.00		2.00		2.00		2.00					1.00	1.00		2.00	3.00
	Actual		0.90	1.80	0.70		1.80		1.80		1.40					0.80	0.70		1.40	2.70
76 of 195	Expected		1.00	3.00			2.00		2.00				1.00		2.00	1.00		1.00	4.00	
	Actual		0.90	2.70			1.70		1.60				0.90		1.50	0.80		0.80	3.60	
77 of 195	Expected		1.00	3.00			2.00		2.00	1.00			1.00		1.00	2.00		1.00	3.00	
	Actual		0.90	2.80			1.60		1.60	0.90			0.90		0.80	1.60		0.80	2.60	
78 of 195	Expected			4.00			2.00		1.00	1.00			1.00		3.00	4.00		1.00		
	Actual			3.60			1.70		0.90	0.90			0.90		2.10	3.20		0.80		
79 of 195	Expected			3.00			3.00		1.00	2.00	1.00		1.00		2.00	3.00		1.00		
	Actual			2.70			2.70		0.90	1.80	0.90		0.90		1.70	2.60		0.80		
80 of 195	Expected			2.00			3.00		1.00	2.00	2.00		1.00		2.00	3.00			1.00	
	Actual			1.70			2.40		0.80	1.70	1.80		0.90		1.40	2.30			0.90	
81 of 195	Expected			1.00	1.00		2.00		2.00	1.00	2.00		1.00	1.00	1.00	3.00		1.00	1.00	
	Actual			0.80	0.80		1.60		1.80	0.90	1.70		0.80	0.90	0.70	2.50		0.80	0.90	
82 of 195	Expected			2.00	1.00	1.00	1.00		2.00	1.00	1.00				3.00	1.00	3.00		1.00	
	Actual			1.80	0.80	0.90	0.90		1.80	0.90	0.90				2.70	0.90	2.70		0.90	
83 of 195	Expected	1.00		2.00	1.00	3.00			1.00	1.00					3.00	1.00	1.00		1.00	2.00
	Actual	0.90		1.80	0.80	2.80			0.90	0.90					2.70	0.70	0.80		0.90	1.80
84 of 195	Expected	2.00		1.00		3.00	1.00			2.00			1.00		2.00			1.00	4.00	
	Actual	1.80		0.90		2.70	0.90			1.80			0.90		1.80			0.90	3.60	
85 of 195	Expected	2.00		1.00		3.00	1.00			1.00			1.00		2.00	1.00		1.00	3.00	
	Actual	1.80		0.90		2.80	0.90			0.90			0.80		1.60	0.90		0.80	2.50	
86 of 195	Expected	1.00		2.00		1.00	2.00			1.00			1.00		3.00	1.00		1.00	2.00	
	Actual	0.90		1.80		0.90	1.80			0.90			0.80		2.20	0.90		0.90	1.80	
87 of 195	Expected			2.00		2.00	1.00			1.00	1.00			3.00	1.00	2.00	1.00		1.00	2.00
	Actual			1.60		1.60	0.80			0.80	0.80			2.40	0.80	1.60	0.80		0.80	1.50
88 of 195	Expected	1.00		2.00		1.00	2.00			1.00	1.00			3.00	1.00	2.00		1.00		2.00
	Actual	0.90		1.80		0.90	1.60			0.90	0.90			2.60	0.90	1.30			0.90	1.80
89 of 195	Expected	1.00		3.00	1.00	1.00	1.00			1.00	1.00			2.00	1.00	1.00	2.00			2.00
	Actual	0.90		2.80	0.80	0.90	0.90			0.90	0.90			1.80	0.90	0.90	1.50			1.80
90 of 195	Expected	2.00		3.00	1.00		1.00			1.00						2.00	3.00		3.00	1.00
	Actual	1.80		2.70	0.80		0.80			0.90						1.50	2.70		2.60	0.90
91 of 195	Expected	2.00		2.00		2.00				1.00				1.00		2.00	2.00		2.00	2.00
	Actual	1.80		1.60		1.50				0.80				0.90		1.50	1.60		1.70	1.70
92 of 195	Expected	2.00		1.00	1.00		2.00			2.00	1.00			1.00		3.00	1.00		1.00	2.00
	Actual	1.80		0.90	0.80		1.70			1.70	0.80			0.90		2.30	0.90		0.80	1.80
93 of 195	Expected	2.00	1.00	2.00	1.00	1.00	2.00			2.00				1.00	1.00	1.00			3.00	
	Actual	1.60	0.90	1.70	0.80	0.90	1.50			1.40				0.70	0.90	0.80			2.40	
94 of 195	Expected	1.00	1.00	2.00		1.00	1.00			2.00					1.00	4.00			1.00	3.00
	Actual	0.90	0.90	1.80		0.90	0.80			1.60					0.90	3.40			0.90	2.70
95 of 195	Expected	2.00	1.00	2.00		1.00				1.00					1.00	3.00	1.00		1.00	4.00
	Actual	1.80	0.90	1.80		0.90				0.80					0.90	2.10	0.90		0.80	3.30
96 of 195	Expected	2.00		2.00						2.00	1.00				1.00	5.00	1.00		1.00	2.00
	Actual	1.80		1.80						1.80	0.90				0.90	3.80	0.90		0.80	1.80
97 of 195	Expected	2.00		2.00						2.00	1.00				1.00	3.00	3.00	1.00		2.00
	Actual	1.80		1.60						1.60	0.90				0.90	2.10	2.40	0.70		1.80
98 of 195	Expected			1.00		3.00				1.00	2.00				1.00	3.00	2.00	1.00	1.00	2.00
	Actual			0.60		2.90				0.70	1.50				0.90	1.90	2.60	0.80	0.80	1.80
99 of 195	Expected					3.00				2.00	1.00				1.00	2.00	4.00	1.00	1.00	2.00
	Actual					2.90				1.80	0.90				0.90	1.40	3.10	0.60	0.90	1.60
100 of 195	Expected			1.00	1.00	2.00				2.00	1.00				1.00	2.00	3.00		1.00	3.00
	Actual			0.90	0.80	1.70				1.80	0.90				0.90	1.60	2.70		0.80	2.60
101 of 195	Expected				3.00	2.00	0.00	1.00		1.00					1.00	2.00	3.00		1.00	3.00
	Actual					2.70	1.50	0.00	0.90		0.80				0.90	1.50	2.60		0.90	2.70
102 of 195	Expected			1.00	3.00	3.00	1.00	1.00			1.00					1.00	1.00		1.00	4.00
	Actual			0.90	2.60	2.30	0.90	0.80			0.90					0.70	0.80		0.80	3.50
103 of 195	Expected			1.00	2.00	2.00	2.00	1.00			2.00	1.00				1.00	1.00		1.00	3.00
	Actual			0.90	1.80	1.60	1.90	0.90			1.80	0.90				0.90	0.90		0.90	2.80

Table 2 - Amino Acid Analysis																				
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)	
104 of 195	Expected	1.00	1.00		2.00	3.00			1.00	2.00	2.00				1.00	2.00		1.00	1.00	
	Actual	0.90	0.90		1.60	2.80			0.90	1.80	1.80				0.80	1.70		0.90	0.90	
105 of 195	Expected	2.00	1.00	2.00	1.00	2.00			1.00	1.00	2.00				2.00	2.00		1.00		
	Actual	1.80	0.90	1.80	0.80	1.80			0.90	0.90	1.70				1.60	1.70		0.80		
106 of 195	Expected	3.00	2.00	2.00	1.00	2.00			1.00	2.00	1.00				2.00	1.00				
	Actual	2.60	1.70	1.80	0.80	1.80			0.80	1.70	0.90				1.30	0.80				
107 of 195	Expected	3.00	2.00	2.00		2.00				3.00		1.00			3.00			1.00		
	Actual	2.60	1.60	1.70		1.80				2.50		0.70			2.20			0.90		
108 of 195	Expected	2.00	1.00	2.00		2.00				2.00	2.00	1.00	1.00		2.00	1.00		1.00		
	Actual	1.80	0.90	1.80		1.80				1.80	1.80	0.80	0.90		1.50	0.80		0.90		
109 of 195	Expected	2.00		2.00		1.00				2.00	2.00	1.00	2.00		1.00	2.00		2.00		
	Actual	1.70		1.70		0.80				1.70	1.70	0.70	1.70		0.80	1.50		1.70		
110 of 195	Expected	2.00		3.00			1.00			1.00	2.00		3.00		2.00	1.00		1.00	1.00	
	Actual	1.80		2.70			0.90			0.90	1.80		2.70		1.80	0.90		0.70	0.90	
111 of 195	Expected	1.00		3.00			1.00			1.00	2.00		1.00		4.00	1.00		1.00	2.00	
	Actual	0.80		2.50			0.90			0.80	1.60		0.90		3.30	0.80		0.80	1.50	
112 of 195	Expected			2.00			1.00			1.00	2.00		1.00	2.00	5.00	1.00		1.00	1.00	
	Actual			1.60			0.80			0.70	1.60		0.70	1.50	3.50	0.70		0.70	0.80	
113 of 195	Expected	1.00	1.00			2.00			1.00	2.00				2.00	5.00	1.00		2.00		
	Actual	0.80	0.80			1.50			0.80	1.60				1.70	3.50	0.80		1.60		
114 of 195	Expected	2.00	2.00	1.00		1.00	2.00			1.00	1.00				1.00	4.00	1.00		1.00	
	Actual	1.80	1.80	0.90		0.90	1.60			0.90	0.90				0.90	3.60	0.90		0.90	
115 of 195	Expected	2.00	2.00	1.00		1.00	1.00			2.00	2.00	1.00		1.00		3.00	0.00		1.00	
	Actual	1.60	1.60	0.80		0.90	0.80			1.50	1.60	0.80		0.80		2.10	0.00		0.80	
116 of 195	Expected	1.00		1.00		1.00	2.00			2.00	3.00	1.00		1.00		3.00	1.00		1.00	
	Actual	0.90		0.90		0.90	1.70			1.80	2.70	0.90		0.90		2.20	0.80		0.90	
117 of 195	Expected	1.00		2.00			2.00			3.00	1.00		1.00		2.00	2.00		1.00	2.00	
	Actual	0.80		1.60			1.60			2.40	0.80		0.80		1.50	1.50		0.70	1.60	
118 of 195	Expected	1.00		2.00	1.00		3.00			1.00	3.00				1.00	3.00		1.00	1.00	
	Actual	0.80		1.70	0.70		2.40			0.80	2.40				0.80	2.40		0.80	0.90	
119 of 195	Expected	2.00		3.00	1.00		1.00			1.00	2.00	3.00				1.00	1.00		1.00	1.00
	Actual	1.60		2.30	0.80		0.80			0.80	1.60	2.40				0.70	0.80		0.80	0.80
120 of 195	Expected	3.00		1.00	2.00	1.00	1.00			1.00	2.00	2.00				1.00	1.00		2.00	
	Actual	2.70		0.90	1.60	0.90	0.90			0.80	1.80	1.80				0.90	0.80		1.80	
121 of 195	Expected	3.00		2.00	1.00	1.00	1.00			2.00	2.00		1.00			1.00			2.00	1.00
	Actual	2.70		1.80	0.80	0.90	0.90			1.80	1.80		0.90			0.70			1.80	0.90
122 of 195	Expected	3.00		2.00	1.00	1.00	2.00			1.00	1.00		1.00		1.00			2.00	2.00	
	Actual	2.40		1.70	0.70	0.90	1.80			0.90	0.90		0.90		0.90			1.70	1.80	
123 of 195	Expected	3.00	1.00	1.00		1.00	2.00			1.00	1.00		3.00		1.00			1.00	2.00	
	Actual	2.80	0.90	0.90		0.90	1.60			0.90	0.90		2.40		0.90			0.80	1.80	
124 of 195	Expected	3.00	1.00	1.00		1.00	3.00			1.00	1.00		2.00			1.00	1.00		1.00	
	Actual	2.80	0.90	0.90		0.90	2.80			0.90	0.90		1.70		0.90	0.90		0.80	0.90	
125 of 195	Expected	2.00	1.00			5.00				2.00	2.00		2.00			1.00	1.00		1.00	
	Actual	1.80	0.90			4.50				1.80	1.80		1.60		0.80	0.80		0.80		
126 of 195	Expected	2.00				5.00				2.00	3.00				3.00	1.00			1.00	
	Actual	1.80				4.50				1.80	2.70				2.60	0.90		0.90		
127 of 195	Expected	3.00				2.00				2.00	3.00				1.00	1.00		1.00		
	Actual	2.40				1.70				1.70	2.40				0.90	0.90		0.90		
128 of 195	Expected	3.00	1.00	1.00		1.00				2.00	2.00				1.00	1.00	3.00	1.00		
	Actual	2.70	0.80	0.80		0.90				1.70	1.70				0.90	0.90	2.20	0.80		
129 of 195	Expected	3.00	1.00	1.00		2.00				1.00	3.00				1.00	1.00	1.00	1.00	1.00	
	Actual	2.20	0.70	0.80		1.40				0.70	2.20				0.70	0.70	0.70	0.70	0.80	
130 of 195	Expected	2.00	1.00	2.00		4.00				1.00	3.00						1.00		2.00	
	Actual	1.80	0.90	1.80		3.60				0.90	2.70						0.90		1.80	
131 of 195	Expected	2.00				4.00				1.00	3.00	1.00					1.00		2.00	
	Actual	1.80				3.20				0.80	2.60	0.80					0.80		1.80	
132 of 195	Expected	3.00		3.00		3.00				1.00	2.00	2.00		1.00		1.00			1.00	
	Actual	2.50		2.50		2.40				1.70	1.70	1.70		0.90		0.80			0.80	

		Table 2 - Amino Acid Analysis																			
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)		
133 of 195	Expected	3.00		3.00		1.00			2.00	1.00	2.00	1.00	1.00			1.00	1.00			1.00	
	Actual	2.70		2.80		0.90			1.60	0.90	1.70	0.80	0.90			0.70	0.90			0.90	
134 of 195	Expected	3.00		3.00			1.00		1.00		1.00	1.00	2.00			1.00	2.00			2.00	
	Actual	2.30		2.80			0.90		0.90		0.90	0.80	1.80			0.80	1.80			1.90	
135 of 195	Expected	2.00		4.00		1.00	1.00		2.00			1.00	1.00				3.00				2.00
	Actual	1.80		3.60		0.90	0.90		1.80			0.70	0.90				2.50				1.80
136 of 195	Expected	3.00		2.00		3.00	1.00		1.00	1.00			1.00			1.00	3.00			1.00	
	Actual	2.70		1.80		2.70	0.80		0.90	0.90			0.90			0.80	2.60			0.90	
137 of 195	Expected	4.00		1.00		3.00			1.00	2.00						1.00	4.00			1.00	
	Actual	3.60		0.90		2.90			0.90	1.80						0.70	3.50			0.90	
138 of 195	Expected	3.00		2.00		3.00			1.00	2.00	1.00					1.00	2.00			2.00	
	Actual	2.70		1.80		2.70			0.90	1.80	0.90					0.90	1.80			1.80	
139 of 195	Expected	2.00		4.00		3.00	1.00		1.00	1.00	1.00							1.00			3.00
	Actual	1.80		3.60		2.70	0.80		0.90	0.90	0.90							0.90			2.60
140 of 195	Expected			4.00		3.00	1.00	1.00	1.00	2.00	1.00						1.00	1.00			2.00
	Actual			3.60		2.70	0.90	0.90	0.80	1.80	0.70						0.90	0.90			1.50
141 of 195	Expected			1.00	4.00		4.00	1.00	1.00		3.00						2.00	1.00			
	Actual			0.90	3.60		3.70	0.90	0.90		2.80						1.50	0.90			
142 of 195	Expected	1.00	1.00	2.00		3.00		1.00	1.00	3.00						1.00	3.00	1.00			
	Actual	0.90	0.90	1.80		2.70		0.80	0.90	2.70						0.90	2.50	0.90			
143 of 195	Expected	2.00	1.00	1.00		4.00				3.00	1.00					1.00	4.00				
	Actual	1.90	0.90	0.90		3.80				2.70	0.80					0.90	4.60				
144 of 195	Expected	2.00	1.00	2.00		2.00				3.00	1.00					1.00	3.00	1.00		1.00	
	Actual	1.80	0.80	1.80		1.80				2.40	0.90					0.80	2.10	0.80		0.80	
145 of 195	Expected	2.00	1.00	3.00		4.00				3.00	1.00						1.00	1.00			1.00
	Actual	1.80	0.90	2.70		3.70				2.70	0.90						0.70	0.80			0.80
146 of 195	Expected	1.00	2.00	4.00		3.00				2.00	2.00							2.00			1.00
	Actual	0.90	1.90	3.70		2.80				1.80	1.80							1.70			0.90
147 of 195	Expected	3.00	2.00	2.00		3.00	1.00		2.00	2.00								1.00			1.00
	Actual	2.70	1.80	1.80		2.70	0.90		1.70	1.80								0.90			0.90
148 of 195	Expected	2.00	2.00	2.00			1.00		1.00	3.00						1.00	1.00			3.00	
	Actual	1.80	1.80	1.80			0.90		0.80	2.70						0.90	0.80			2.70	
149 of 195	Expected	2.00	1.00	1.00			1.00	1.00		3.00	1.00					1.00	1.00	2.00		1.00	2.00
	Actual	1.80	0.90	0.90			0.90	0.90		2.70	0.80					0.90	0.90	1.60		0.80	1.80
150 of 195	Expected	1.00	1.00	1.00		1.00			1.00		1.00		1.00				2.00	3.00	1.00	3.00	
	Actual	0.70	0.80	0.90		0.90			0.90		0.90		0.90				1.50	2.50	0.90	2.60	
151 of 195	Expected	2.00	2.00			4.00					2.00	1.00					1.00	3.00	1.00	1.00	1.00
	Actual	1.80	1.80			3.60					1.70	0.80					0.80	2.10	0.80	0.90	0.90
152 of 195	Expected	2.00	2.00	1.00	1.00	5.00					1.00	1.00						1.00			3.00
	Actual	1.50	1.50	0.80	0.70	4.10					0.80	0.80						0.70			2.50
153 of 195	Expected	1.00	1.00	1.00	1.00	5.00					1.00	3.00						2.00			
	Actual	0.90	0.90	0.90	0.80	4.60					0.80	2.70						1.60			1.80
154 of 195	Expected			1.00	1.00	2.00	2.00	2.00					3.00			1.00	2.00			1.00	2.00
	Actual			0.90	0.80	1.50	1.60	1.80					2.70			0.90	1.80			0.90	1.80
155 of 195	Expected			1.00	1.00	1.00	1.00	3.00	1.00	1.00			2.00			2.00	1.00			1.00	
	Actual			0.80	0.90	0.80	0.90	2.30	0.90	0.90			1.60			1.60		1.10	0.80		0.80
156 of 195	Expected	2.00			2.00	1.00		3.00	1.00	2.00						2.00		1.00	1.00	1.00	
	Actual	1.80			1.80	0.80		2.70	0.90	1.80						1.80		0.90	0.80	0.70	
157 of 195	Expected	2.00			1.00		1.00	2.00	1.00	2.00	1.00					2.00	1.00	1.00	1.00		2.00
	Actual	1.80			0.90		0.90	1.80	0.90	1.60	0.90					1.80	0.90	0.80	0.70		1.80
158 of 195	Expected	2.00			1.00		1.00	1.00	1.00	1.00	4.00					1.00	1.00		1.00		3.00
	Actual	1.60			0.90		0.90	0.80	0.80	0.60	3.20					0.90	0.90	0.80		2.30	
159 of 195	Expected				1.00		2.00	1.00	1.00			4.00	1.00			1.00	1.00	2.00		1.00	2.00
	Actual				0.70		1.50	0.70	0.70			2.80	0.70			0.70	0.70	1.40		0.70	1.40
160 of 195	Expected	1.00			1.00		2.00	1.00	1.00			2.00	1.00				1.00	1.00	2.00	1.00	1.00
	Actual	0.90			0.90		1.80	0.80	0.90			1.70	0.90				0.90	0.80	1.70	0.80	0.90
161 of 195	Expected	1.00			2.00	1.00	2.00					1.00	1.00					1.00	2.00	1.00	1.00
	Actual	0.90			1.80	0.80	1.80	1.60				0.90	0.80				0.90	1.60	0.80	0.80	1.80

		Table 2 - Amino Acid Analysis																	
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
162 of 195	Expected	1.00	1.00	2.00	1.00	1.00	3.00			2.00					1.00	1.00	1.00	1.00	2.00
	Actual	0.90	0.90	1.80	0.80	0.90	2.70			1.80					0.90	0.90	0.80	0.90	1.80
163 of 195	Expected	1.00	1.00	3.00	1.00	1.00	2.00			3.00				1.00		1.00		1.00	2.00
	Actual	0.90	0.90	2.80	0.80	0.90	1.80			2.80				0.90		0.90		0.90	1.80
164 of 195	Expected	1.00	1.00	2.00		2.00	2.00			3.00	1.00			1.00				3.00	1.00
	Actual	0.90	0.90	1.80		1.80	1.70			2.70	0.90			0.90				2.70	0.90
165 of 195	Expected	1.00	2.00	2.00		1.00	1.00		1.00	2.00	1.00			1.00	1.00	1.00		3.00	
	Actual	0.90	1.70	1.80		0.90	0.90		0.80	1.80	0.90			0.90	0.60	0.80		2.60	
166 of 195	Expected		3.00	1.00		2.00	1.00		2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00		2.00
	Actual		2.50	0.80		1.60	0.70		1.60		0.80	0.70	0.80	0.80	0.70	0.80			1.50
167 of 195	Expected	1.00	3.00	1.00		1.00				3.00				2.00	1.00	2.00	1.00		
	Actual	0.70	2.70	0.70		0.90				2.60				1.70	0.90	1.80	0.80	1.60	
168 of 195	Expected	1.00	1.00	2.00		3.00				2.00				2.00	2.00	2.00		1.00	
	Actual	0.90	0.80	1.80		2.70				1.70				0.90	1.80	1.80		0.80	0.90
169 of 195	Expected	1.00		3.00	1.00	2.00				1.00				1.00	2.00	1.00		2.00	
	Actual	0.80		2.60	0.80	1.80				0.90				0.70	1.70	0.90		1.60	
170 of 195	Expected		1.00	3.00	1.00	3.00				2.00				1.00		2.00	1.00		3.00
	Actual		0.90	2.70	0.80	2.80				1.80				0.90		1.40	0.80		2.60
171 of 195	Expected		1.00	2.00		2.00				2.00	1.00			1.00	1.00	2.00			3.00
	Actual		0.90	1.80		1.80				1.70	0.90			0.90	0.90	1.40	1.60		2.60
172 of 195	Expected		1.00	2.00		3.00				3.00	1.00				1.00	2.00	1.00		1.00
	Actual		0.90	1.80		2.80				2.60	0.90				0.90	1.70	0.90		0.90
173 of 195	Expected			2.00		4.00				2.00	2.00	1.00			1.00		2.00		1.00
	Actual			1.80		3.60				1.80	1.80	0.90			0.90		1.60		0.80
174 of 195	Expected			2.00		3.00				1.00	3.00	2.00			1.00	1.00	1.00		2.00
	Actual			1.80		2.70				0.80	2.60	1.80			0.90	0.90	0.90		1.70
175 of 195	Expected			2.00		2.00					3.00	2.00			2.00	1.00	2.00		2.00
	Actual			1.90		1.90					2.70	1.80			1.80	0.90	1.60		1.70
176 of 195	Expected			2.00		2.00					2.00	1.00			2.00	1.00	1.00		3.00
	Actual			1.80		1.80					1.80	0.90			1.80	0.80	0.90		2.60
177 of 195	Expected			3.00		3.00				1.00	2.00				1.00		2.00		2.00
	Actual			2.70		2.70				0.80	1.60				0.90		1.60		1.40
178 of 195	Expected			2.00		4.00				2.00	2.00					2.00	2.00		1.00
	Actual			1.80		3.60				1.90	1.90					1.70	1.80		0.70
179 of 195	Expected			3.00		3.00				2.00	3.00	1.00				2.00	3.00		
	Actual			2.70		2.90				1.80	2.70	0.90				1.50	2.60		
180 of 195	Expected	1.00		2.00		3.00				1.00	3.00	1.00				3.00	2.00		1.00
	Actual	0.90		1.80		2.80				0.80	2.70	0.90				2.50	1.70		0.90
181 of 195	Expected	1.00		2.00		4.00					3.00	2.00				1.00	2.00		1.00
	Actual	0.90		1.50		3.60					2.70	1.80				0.80	1.60		0.90
182 of 195	Expected	1.00		3.00		3.00				2.00	3.00	1.00					2.00		1.00
	Actual	0.70		2.60		2.60				1.80	2.60	0.80					1.60		0.70
183 of 195	Expected			4.00		2.00				2.00	3.00	1.00				1.00	2.00		2.00
	Actual			3.60		1.80				1.80	2.70	0.90				0.90	1.80		1.80
184 of 195	Expected			1.00	5.00					2.00	4.00	1.00				1.00	1.00	1.00	
	Actual			0.90	4.50					1.40	3.20	0.90				0.70	0.70	0.80	
185 of 195	Expected			1.00	2.00	1.00				1.00	3.00	2.00				1.00	2.00	1.00	1.00
	Actual			0.90	1.80	0.90				0.80	2.20	1.60				0.60	1.50	0.70	0.80
186 of 195	Expected			1.00	1.00	1.00				1.00	1.00	2.00				1.00	1.00	5.00	1.00
	Actual			0.90	0.90	0.90				0.90	0.80	1.70				0.90	0.90	4.20	0.90
187 of 195	Expected				1.00	1.00				2.00	1.00	1.00				1.00	1.00	1.00	4.00
	Actual				0.80	0.80				1.40	0.80	0.70				0.70	0.80	0.70	3.20
188 of 195	Expected					1.00				2.00	2.00				1.00	1.00	2.00		5.00
	Actual					0.70				1.40	1.40				0.70	0.80	1.40		3.50
189 of 195	Expected					3.00				2.00	4.00				1.00	1.00	2.00		4.00
	Actual					2.10				1.30	3.10				0.70	0.70	1.40		2.80
190 of 195	Expected					5.00				1.00	3.00				1.00	1.00	2.00		2.00
	Actual					4.10				0.70	2.20				0.60	0.70	1.30		1.40

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# Certificate of Analysis for NR-3010

		Table 2 - Amino Acid Analysis																		
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)	
191 of 195	Expected				6.00		2.00			3.00			3.00		2.00	1.00				
	Actual				4.70		1.80			2.60			2.70		1.20	0.90				
192 of 195	Expected	1.00	1.00		3.00		3.00		1.00				3.00		4.00	1.00				
	Actual	0.90	0.90		2.20		2.70		0.90				2.70		3.40	0.80				
193 of 195	Expected	1.00	1.00		3.00	1.00	1.00		1.00		1.00		3.00		4.00	1.00				
	Actual	0.90	0.90		2.30	0.90	0.90		0.80		0.90		2.50		2.70	0.80				
194 of 195	Expected		1.00	1.00	2.00	1.00	1.00		1.00	1.00	1.00			1.00	3.00	1.00		2.00	1.00	
	Actual		0.80	0.90	1.60	0.90	0.80		0.80	0.90	0.90			0.90	2.50	0.90		1.80	0.90	
195 of 195	Expected			1.00	1.00	3.00		1.00	2.00	1.00	2.00			1.00	1.00	1.00		2.00	1.00	
	Actual			0.80	0.60	2.60		0.80	1.60	0.70	1.60			0.80	0.60	0.60		1.50	0.80	

**Date:** 02 JUL 2007

**Signature:** Signature on File

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