

CompuSyn Report

Experiment Name: Constant ratio combination of PU-H71+DHEA invitro against MDA-MB-231

Date: 19-7-2017

File Name: C:\Users\Carnival\Desktop\Constant ratio combination of PU-H71+DHEA invitro against MDA-MB-231 triple negative breast cancer cell line, Neutral red assay, 19-7-2017.cse

Description: Constant ratio combination of Heat shock protein 90 inhibitor (PU-H71) and glucose-6-phosphate dehydrogenase inhibitor (DHEA) invitro against MDA-MB-231 triple negative breast cancer cell line, Neutral red assay.

Drug: PU-H71 (PU-H71) [nM]

Drug: Dehydroepiandrosterone (DHEA) [μ M]

Drug Combo: Constant ratio combination of PU-H71+DHEA (CR P+D) (PU-H71+DHEA [155:250])

Data for Drug: PU-H71 [nM]

Dose	Effect
10.0	0.267
50.0	0.3855
100.0	0.46
200.0	0.4878
250.0	0.5222
300.0	0.6068
400.0	0.6017

7 data points entered.

X-int: 2.18934

Y-int: -0.8407 +/- 0.07855

m: 0.38399 +/- 0.03683

Dm: 154.648

r: 0.97776

Data for Drug: DHEA [μ M]

Dose	Effect
100.0	0.0054
200.0	0.3144
300.0	0.4106
350.0	0.9089
400.0	0.9512

5 data points entered.

X-int: 2.40168

Y-int: -13.473 +/- 1.91995

m: 5.60974 +/- 0.80174

Dm: 252.164

r: 0.97070

Data for Drug Combo: CR P+D (PU-H71+DHEA [155:250])

Dose A	Effect
39.0370+	0.0438
77.6914+	0.2938
116.346+	0.6211
155.0+	0.8249

4 data points entered.

X-int: 2.41382

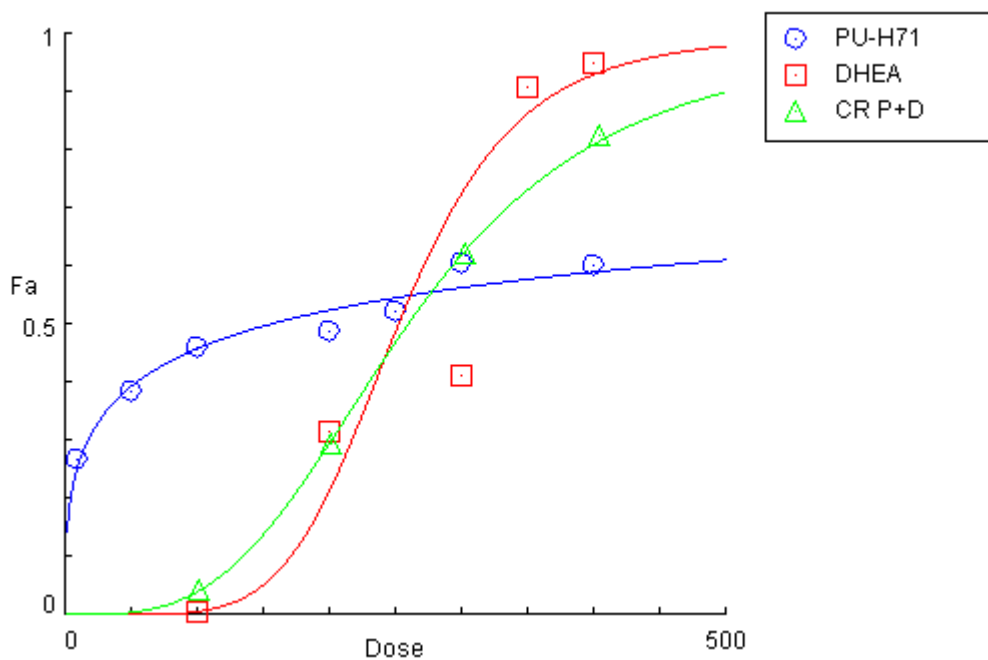
Y-int: -8.0724 +/- 0.15832

m: 3.34424 +/- 0.06702

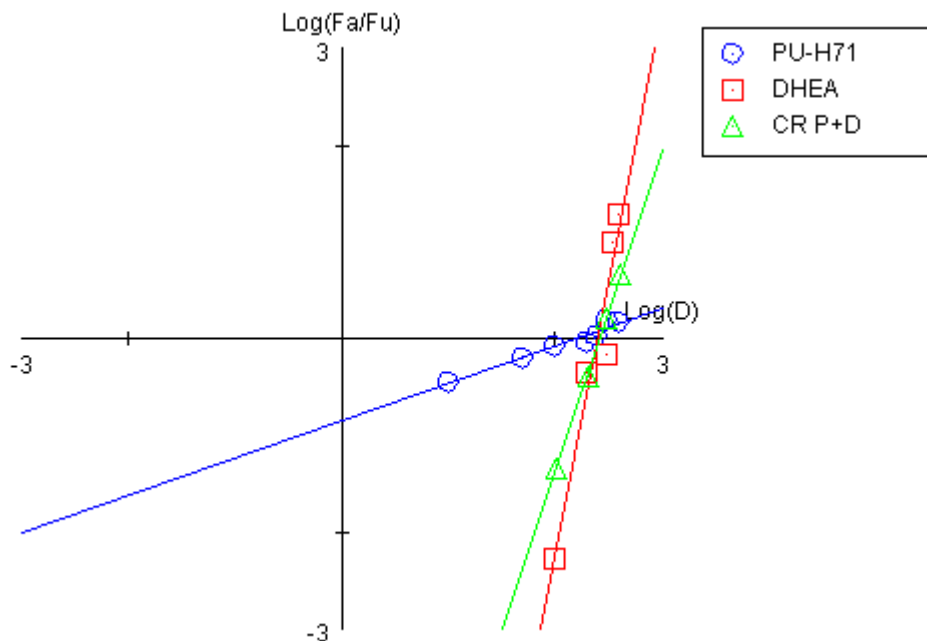
Dm: 259.309

r: 0.99960

Dose-Effect Curve



Median-Effect Plot



CI Data for Drug Combo: CR P+D (PU-H71+DHEA [155:250])

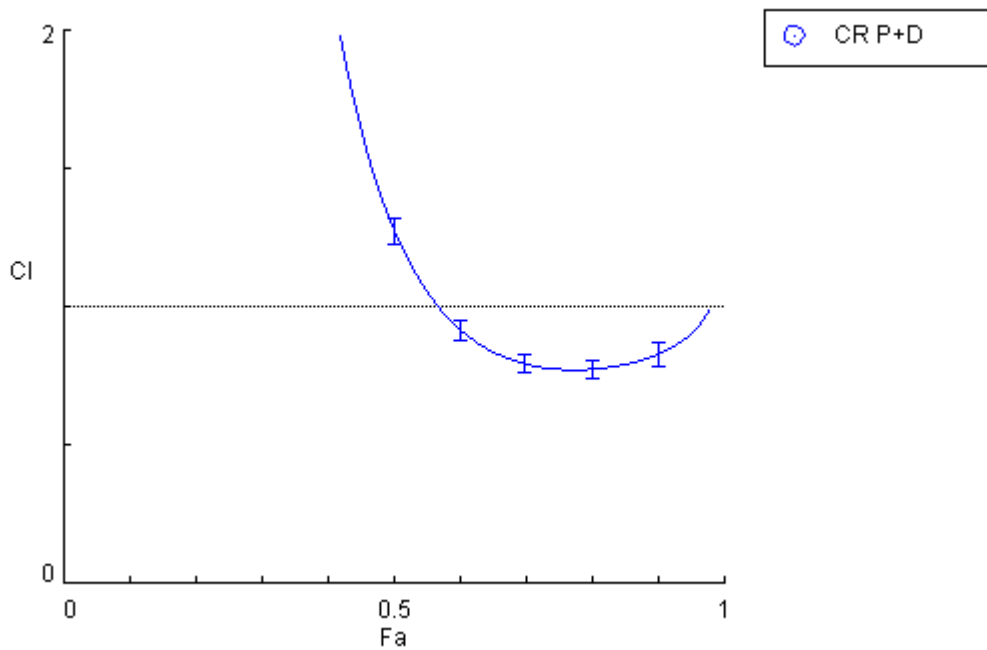
Fa	CI Value	Total Dose
0.05	569.494	107.508
0.1	102.131	134.425
0.15	35.5038	154.368
0.2	16.2126	171.312
0.25	8.63229	186.702
0.3	5.09801	201.273
0.35	3.26265	215.490
0.4	2.23854	229.701
0.45	1.63876	244.207
0.5	1.27650	259.309
0.55	1.05441	275.345
0.6	0.91864	292.734
0.65	0.83808	312.038
0.7	0.79417	334.080
0.75	0.77582	360.153
0.8	0.77673	392.506
0.85	0.79446	435.591
0.9	0.83172	500.215
0.95	0.90654	625.450
0.97	0.96610	733.222

CI values for actual experimental points:

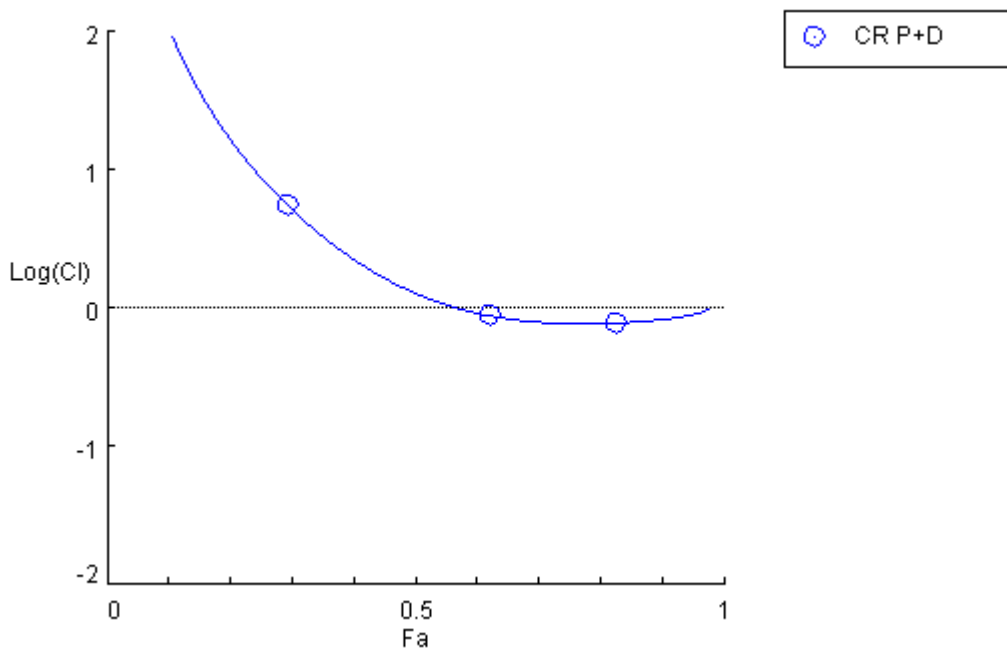
Total Dose	Fa	CI Value
102.0	0.0438	775.603
203.0	0.2938	5.51185

Total Dose	Fa	CI Value
304.0	0.6211	0.88912
405.0	0.8249	0.76979

Combination Index Plot



Logarithmic Combination Index Plot



DRI Data for Drug Combo: CR P+D (PU-H71+DHEA [155:250])

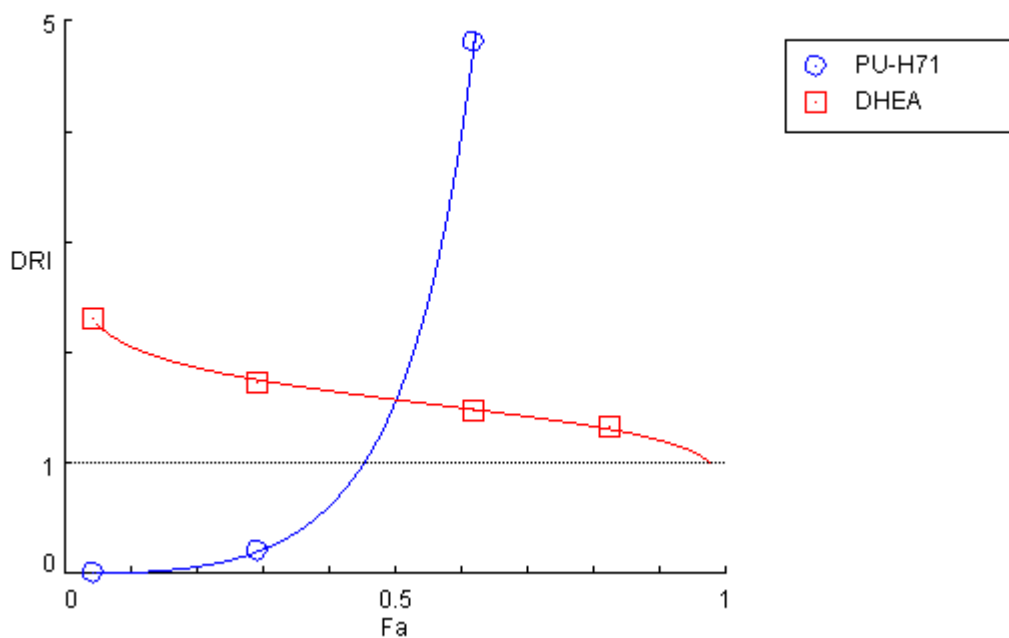
Fa	Dose PU-H71	Dose DHEA	DRI PU-H71	DRI DHEA
0.05	0.07231	149.187	0.00176	2.24804
0.1	0.50614	170.443	0.00984	2.05407

Fa	Dose PU-H71	Dose DHEA	DRI PU-H71	DRI DHEA
0.15	1.68850	185.095	0.02858	1.94246
0.2	4.18252	196.951	0.06379	1.86245
0.25	8.84724	207.315	0.12382	1.79886
0.3	17.0234	216.814	0.22100	1.74509
0.35	30.8466	225.818	0.37403	1.69764
0.4	53.7973	234.581	0.61196	1.65442
0.45	91.7030	243.303	0.98118	1.61401
0.5	154.648	252.164	1.55829	1.57536
0.55	260.797	261.348	2.47485	1.53765
0.6	444.555	271.065	3.96805	1.50008
0.65	775.317	281.584	6.49224	1.46189
0.7	1404.88	293.278	10.9879	1.42214
0.75	2703.20	306.715	19.6117	1.37963
0.8	5718.05	322.855	38.0649	1.33253
0.85	14164.0	343.536	84.9629	1.27764
0.9	47251.3	373.068	246.820	1.20822
0.95	330763.	426.222	1381.81	1.10397
0.97	1320767	468.593	4706.67	1.03532

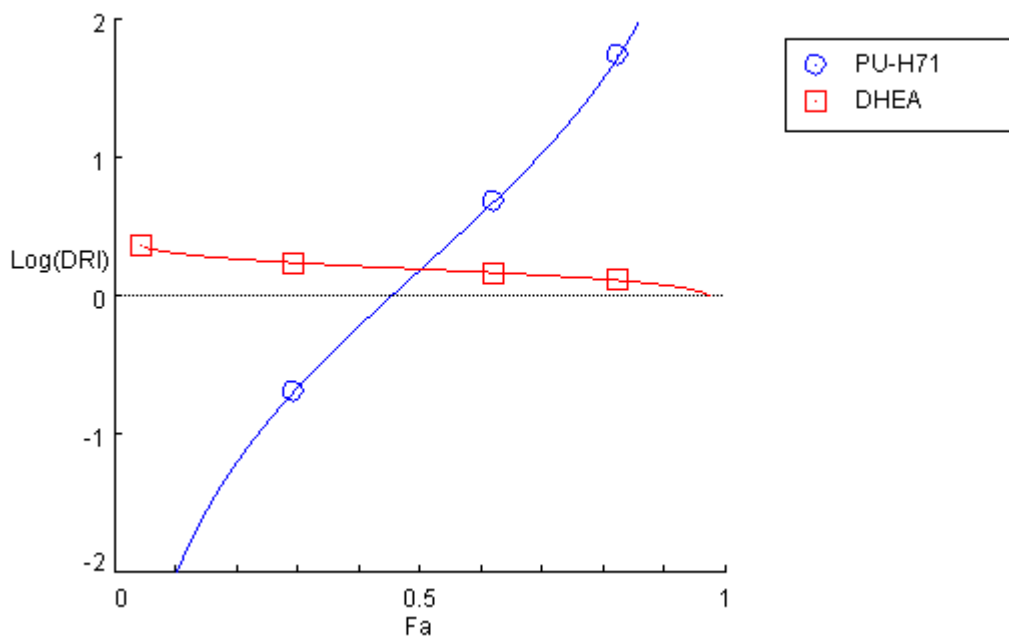
DRI values calculated at experimental points

Fa	Dose PU-H71	Dose DHEA	DRI PU-H71	DRI DHEA
0.0438	0.05036	145.539	0.00129	2.31149
0.2938	15.7563	215.669	0.20281	1.72110
0.6211	560.155	275.388	4.81457	1.46753
0.8249	8755.73	332.410	56.4886	1.32964

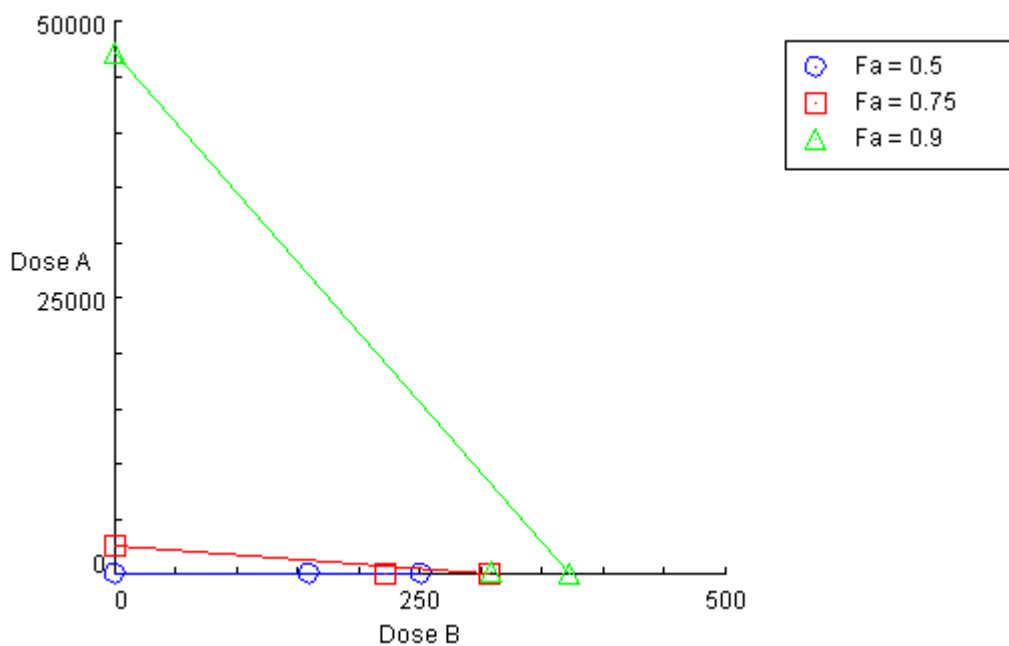
DRI Plot for Combo: CR P+D (PU-H71+DHEA [155:250])



Log(DRI) Plot for Combo: CR P+D (PU-H71+DHEA [155:250])



Isobologram for Combo: CR P+D (PU-H71+DHEA [155:250])



Summary Table

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Drug: PU-H71 (PU-H71) [nM]**Drug:** Dehydroepiandrosterone (DHEA) [μ M]**Drug Combo:** Constant ratio combination of PU-H71+DHEA (CR P+D) (PU-H71+DHEA [155:250])

Drug/Combo	Dm	m	r
PU-H71	154.648	0.38399	0.97776
DHEA	252.164	5.60974	0.97070
CR P+D	259.309	3.34424	0.99960

CI values at:

Combo	ED50	ED75	ED90	ED95
CR P+D	1.27650	0.77582	0.83172	0.90654

Data for Fa = 0.5

Drug/Combo	CI value	Dose PU-H71	Dose DHEA
PU-H71		154.648	
DHEA			252.164
CR P+D	1.27650	99.2417	160.067

Data for Fa = 0.75

Drug/Combo	CI value	Dose PU-H71	Dose DHEA
PU-H71		2703.20	
DHEA			306.715
CR P+D	0.77582	137.836	222.317

Data for Fa = 0.9

Drug/Combo	CI value	Dose PU-H71	Dose DHEA
PU-H71		47251.3	
DHEA			373.068
CR P+D	0.83172	191.440	308.775

Data for Fa = 0.95

Drug/Combo	CI value	Dose PU-H71	Dose DHEA
PU-H71		330763.	
DHEA			426.222
CR P+D	0.90654	239.370	386.080

Data for Fa = 0.97

Drug/Combo	CI value	Dose PU-H71	Dose DHEA
PU-H71		1320767	
DHEA			468.593
CR P+D	0.96610	280.616	452.606