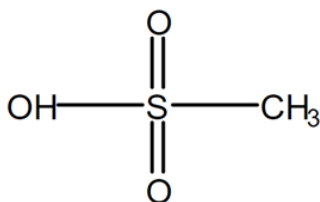


## Supplementary figures



CAS Name : Lenvatinib mesylate,

Molecular Formula : C<sub>21</sub>H<sub>19</sub>ClN<sub>4</sub>O<sub>4</sub>.CH<sub>4</sub>O<sub>3</sub>S

CAS Registry Number® 857890-39-2

Reference :

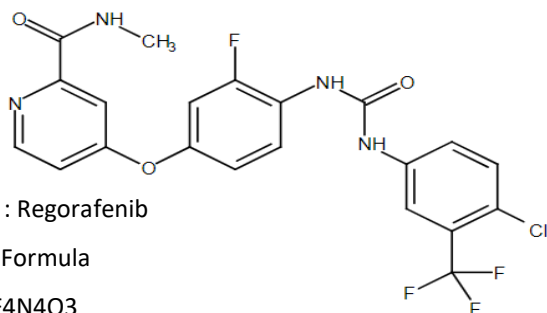
Lenvatinib mesylate. *CAS Common Chemistry*. CAS, a division of the American Chemical Society,

n.d. [https://commonchemistry.cas.org/detail?ref=857890-39-](https://commonchemistry.cas.org/detail?ref=857890-39-2)

2 (retrieved 2021-05-05) (CAS RN: 857890-39-2). Licensed under

the Attribution-Noncommercial 4.0 International License (CC BY-

NC 4.0).



CAS Name : Regorafenib

Molecular Formula

C<sub>21</sub>H<sub>15</sub>ClF<sub>4</sub>N<sub>4</sub>O<sub>3</sub>

CAS Registry Number®

755037-03-7

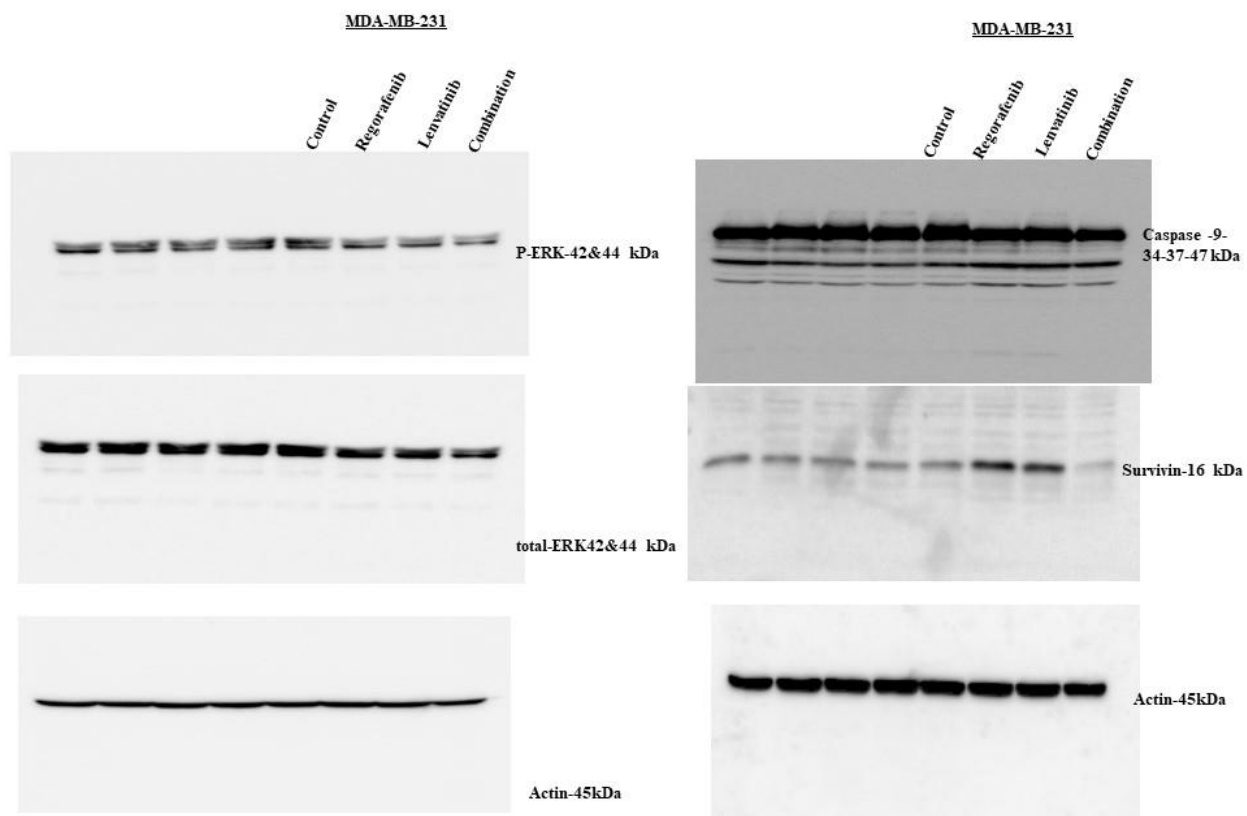
Reference :

Regorafenib. *CAS Common Chemistry*. CAS, a division of the American Chemical Society, n.d.

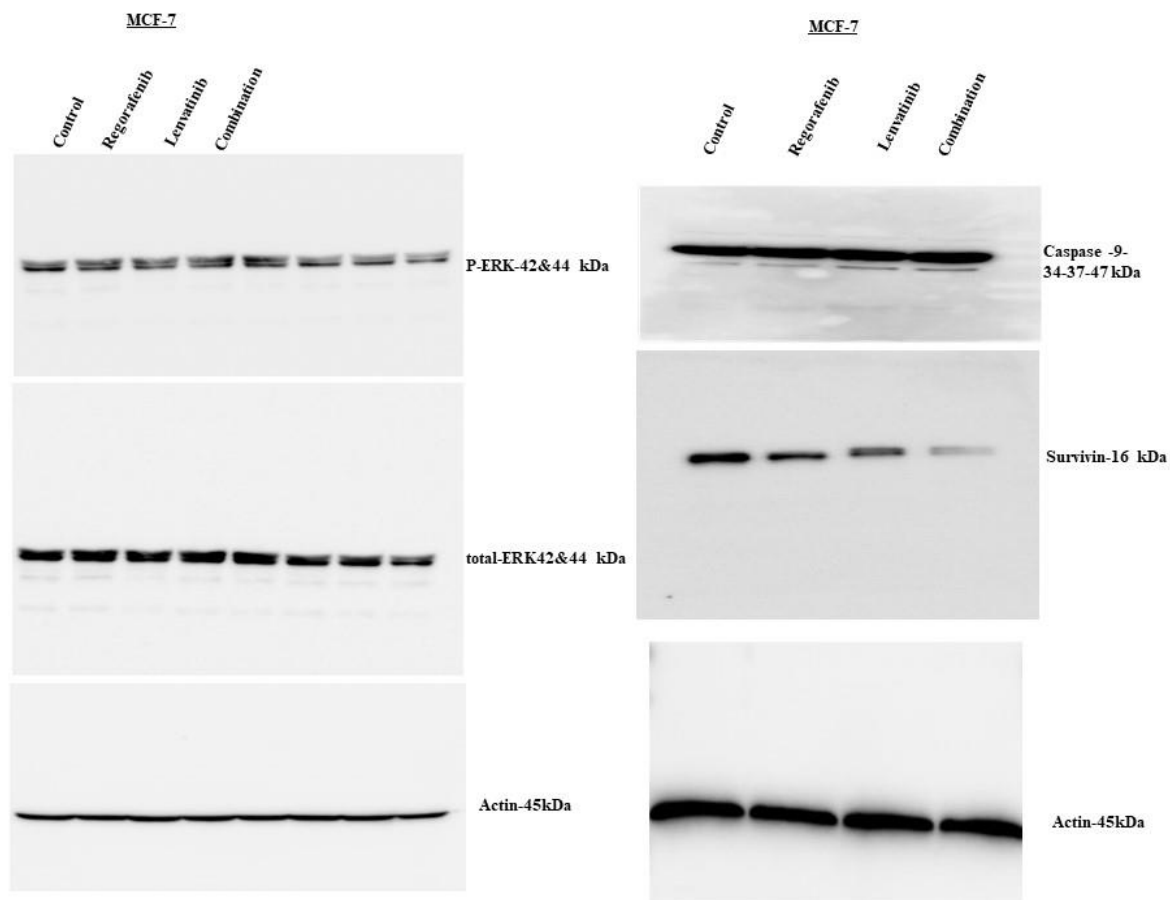
[https://commonchemistry.cas.org/detail?cas\\_rn=755037-03-7](https://commonchemistry.cas.org/detail?cas_rn=755037-03-7) (retrieved 2021-05-05) (CAS RN:

755037-03-7).

**Supplementary Figure S1:** Chemical structure of Lenvatinib and Regorafenib



**Supplementary Figure S2:** Original western blot for caspase, surviving, P-ERK and total-ERK.



**Supplementary Figure S3:** Original western blot for caspase, surviving, P-ERK and total-ERK.

# Supplementary CompuSyn Report 1-MCF7 cells

**Experiment Name:** REG-LEN  
**Date:** 9.5.2021  
**File Name:** C:\Users\USER\Downloads\com72\_MCF7 EXP.cse  
**Description**  
**Drug:** REG (REG) [uM]  
**Drug:** LEN (LEN) [uM]  
**Drug Combo:** Com 72 (Com72) (REG+LEN)

---

Data for Drug: REG [uM]

Dose	Effect
------	--------

1.0	0.99
-----	------

5.0	0.9
-----	-----

10.0	0.87
------	------

3 data points entered.

**X-int:** 1.59249

**Y-int:** 1.95302 +/- 0.17272

**m:** -1.2264 +/- 0.24520

**Dm:** 39.1282

**r:** -0.9806

---

Data for Drug: LEN [uM]

Dose	Effect
------	--------

10.0	0.99
------	------

50.0	0.64
------	------

100.0	0.64
-------	------

3 data points entered.

**X-int:** 2.00920

**Y-int:** 3.77364 +/- 0.93455

**m:** -1.8782 +/- 0.57640

**Dm:** 102.140

**r:** -0.9560

---

Data for Non-Constant Combo: Com72 (REG+LEN)

Dose REG	Dose LEN	Effect
----------	----------	--------

5.0	10.0	0.87
-----	------	------

5.0	50.0	0.62
-----	------	------

5.0	100.0	0.47
-----	-------	------

**Dose REG Dose LEN Effect**

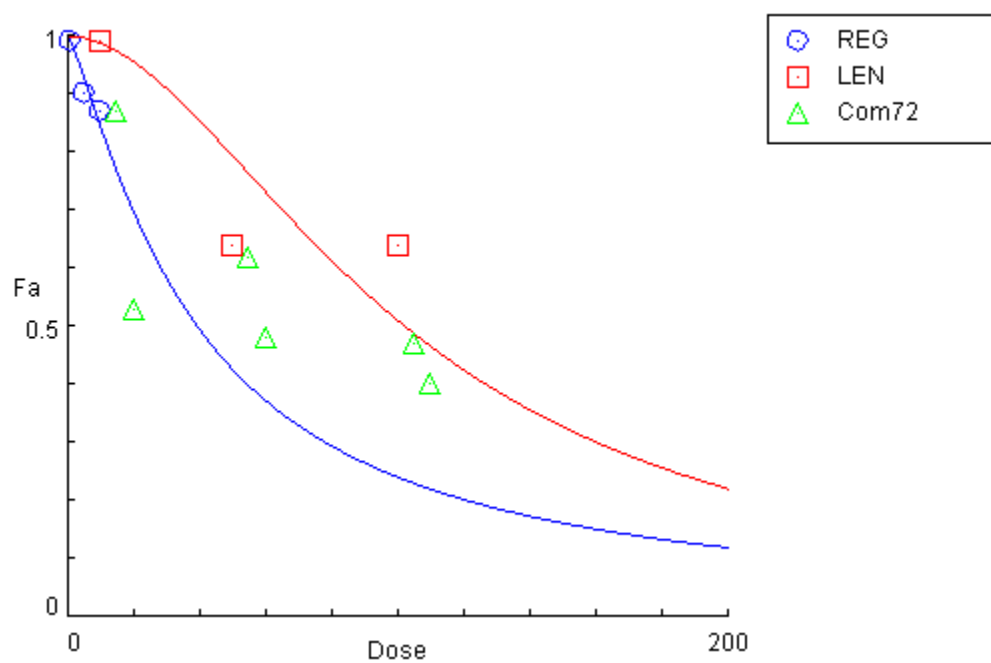
10.0      10.0      0.53

10.0      50.0      0.48

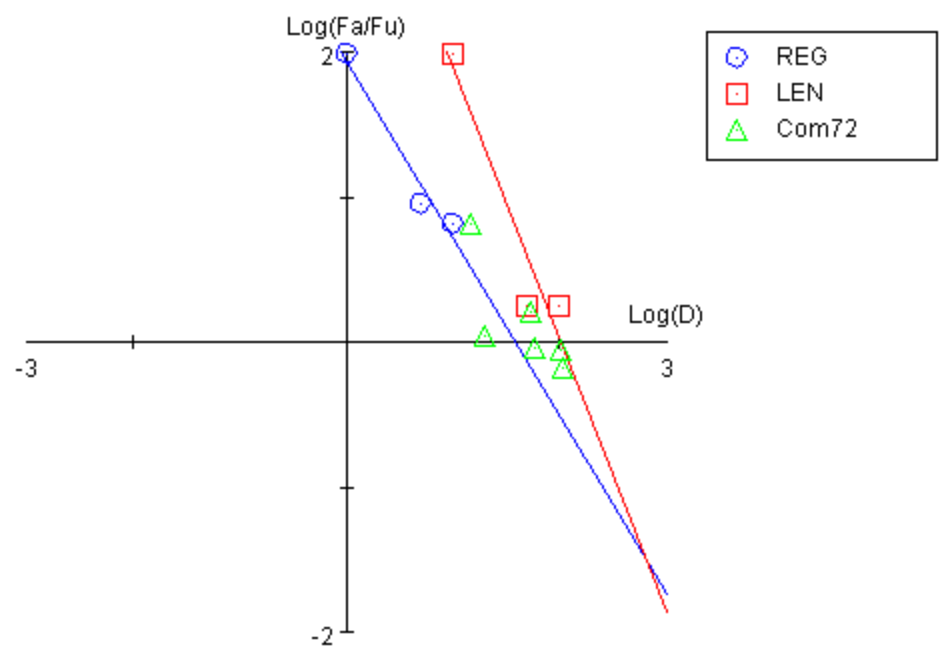
10.0      100.0      0.4

6 data points entered.

Dose-Effect Curve



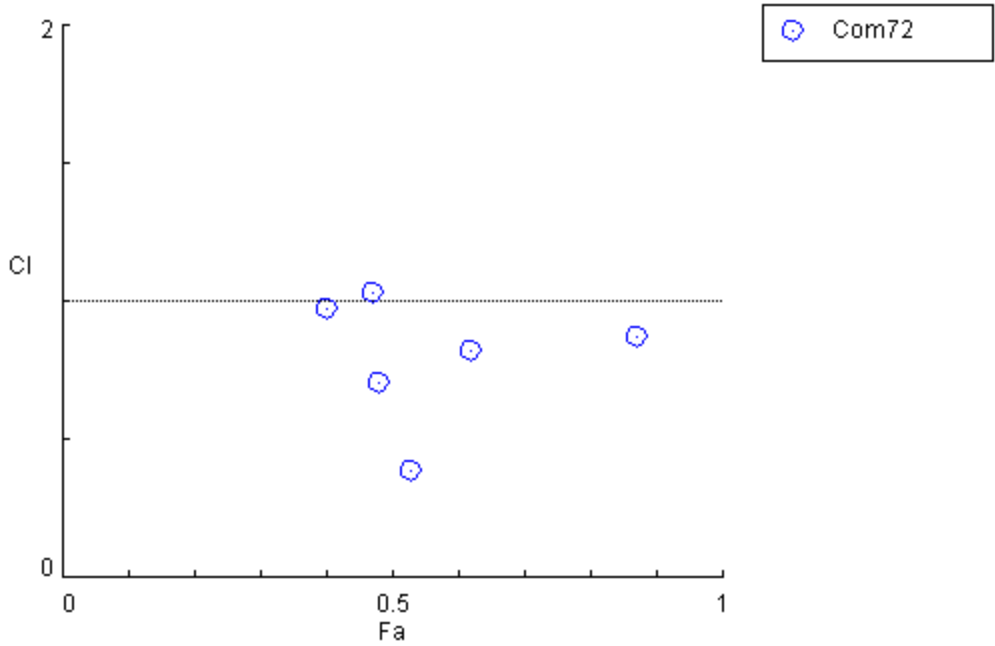
Median-Effect Plot



CI Data for Non-Constant Combo: Com72 (REG+LEN)

Dose REG	Dose LEN	Effect	CI
5.0	10.0	0.87	0.87146
5.0	50.0	0.62	0.82577
5.0	100.0	0.47	1.03424
10.0	10.0	0.53	0.38625
10.0	50.0	0.48	0.70852
10.0	100.0	0.4	0.97257

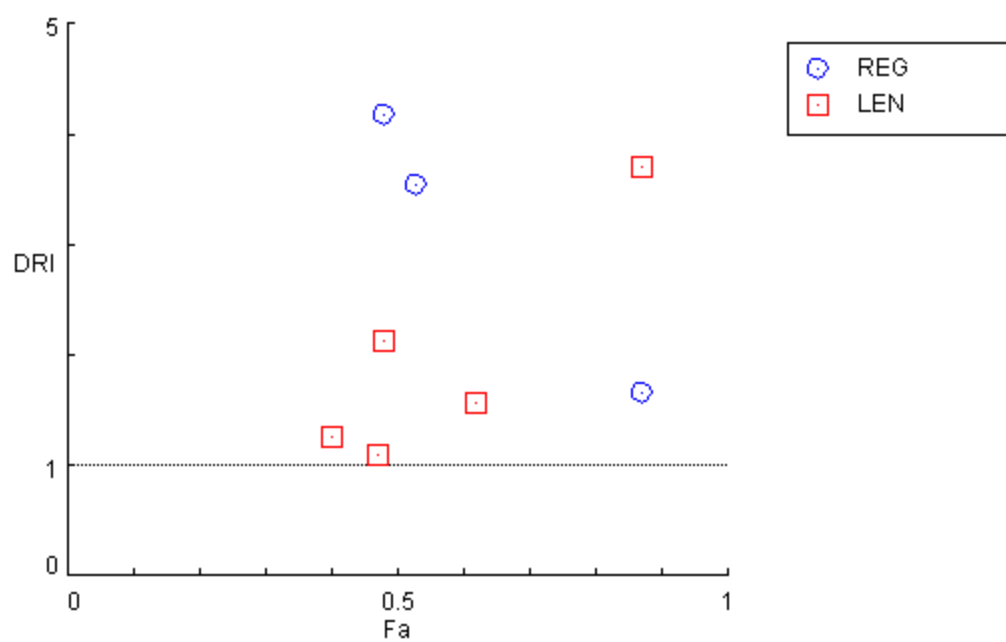
Combination Index Plot



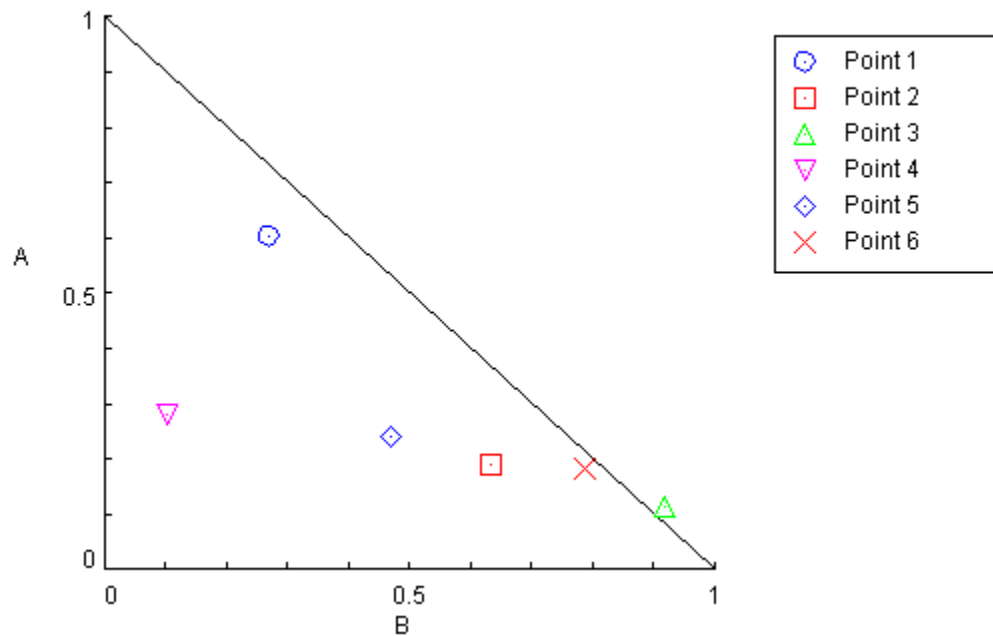
DRI Data for Non-Constant Combo: Com72 (REG+LEN)

Fa	Dose REG	Dose LEN	DRI REG	DRI LEN
0.87	8.30456	37.1224	1.66091	3.71224
0.62	26.2500	78.7041	5.25001	1.57408
0.47	43.1555	108.887	8.63110	1.08887
0.53	35.4768	95.8108	3.54768	9.58108
0.48	41.7672	106.587	4.17672	2.13174
0.4	54.4596	126.751	5.44596	1.26751

DRI Plot for Non-Constant Combo: Com72 (REG+LEN)



Normalized Isobologram for Combo: Com72 (REG+LEN)



## Summary Table

**Experiment Name:** REG-LEN  
**Date:** 9.5.2021



**File Name:** C:\Users\USER\Downloads\com72\_MCF7 EXP.cse

**Description**

**Drug:** REG (REG) [uM]

**Drug:** LEN (LEN) [uM]

**Drug Combo:** Com 72 (Com72) (REG+LEN)

---

<b>Drug/Combo</b>	<b>Dm</b>	<b>m</b>	<b>r</b>
REG	39.1282	-1.2264	-0.9806
LEN	102.140	-1.8782	-0.9560

---

CI values at:

**Combo ED50 ED75 ED90 ED95**

---

Data for Fa = 0.5

<b>Drug/Combo</b>	<b>CI value</b>	<b>Dose REG</b>	<b>Dose LEN</b>
REG	39.1282		
LEN		102.140	

---

Data for Fa = 0.75

<b>Drug/Combo</b>	<b>CI value</b>	<b>Dose REG</b>	<b>Dose LEN</b>
REG	15.9752		
LEN		56.9066	

---

Data for Fa = 0.9

<b>Drug/Combo</b>	<b>CI value</b>	<b>Dose REG</b>	<b>Dose LEN</b>
REG	6.52232		
LEN		31.7051	

---

Data for Fa = 0.95

<b>Drug/Combo</b>	<b>CI value</b>	<b>Dose REG</b>	<b>Dose LEN</b>
REG	3.54647		
LEN		21.2986	

---

Data for Fa = 0.97

<b>Drug/Combo</b>	<b>CI value</b>	<b>Dose REG</b>	<b>Dose LEN</b>
REG	2.29891		
LEN		16.0478	

# Supplementary CompuSyn Report 2- MD-NB 231 cells

**Experiment Name:** REG\_LEN\_72\_TN  
**Date:** 9.5.2021  
**File Name:** C:\Users\USER\Downloads\com72\_TN.cse  
**Description**

**Drug:** REG (REG) [uM]  
**Drug:** LEN (LEN) [uM]  
**Drug Combo:** Com72\_TN (TN72) (REG+LEN)

---

Data for Drug: REG [uM]

Dose	Effect
------	--------

1.0	0.99
-----	------

5.0	0.96
-----	------

10.0	0.91
------	------

3 data points entered.

**X-int:** 2.06953

**Y-int:** 2.01034 +/- 0.05960

**m:** -0.9714 +/- 0.08461

**Dm:** 117.364

**r:** -0.9962

---

Data for Drug: LEN [uM]

Dose	Effect
------	--------

10.0	0.99
------	------

50.0	0.86
------	------

100.0	0.92
-------	------

3 data points entered.

**X-int:** 2.75905

**Y-int:** 2.96456 +/- 0.98479

**m:** -1.0745 +/- 0.60738

**Dm:** 574.186

**r:** -0.8705

---

Data for Non-Constant Combo: TN72 (REG+LEN)

Dose REG	Dose LEN	Effect
----------	----------	--------

5.0	10.0	0.99
-----	------	------

5.0	50.0	0.97
-----	------	------

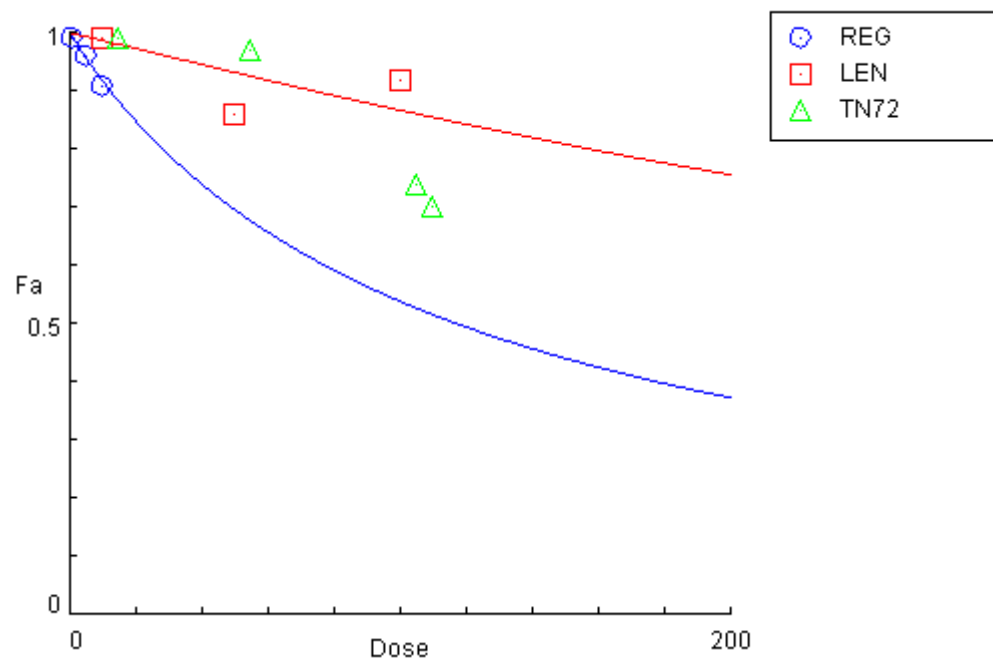
**Dose REG Dose LEN Effect**

5.0        100.0     0.74

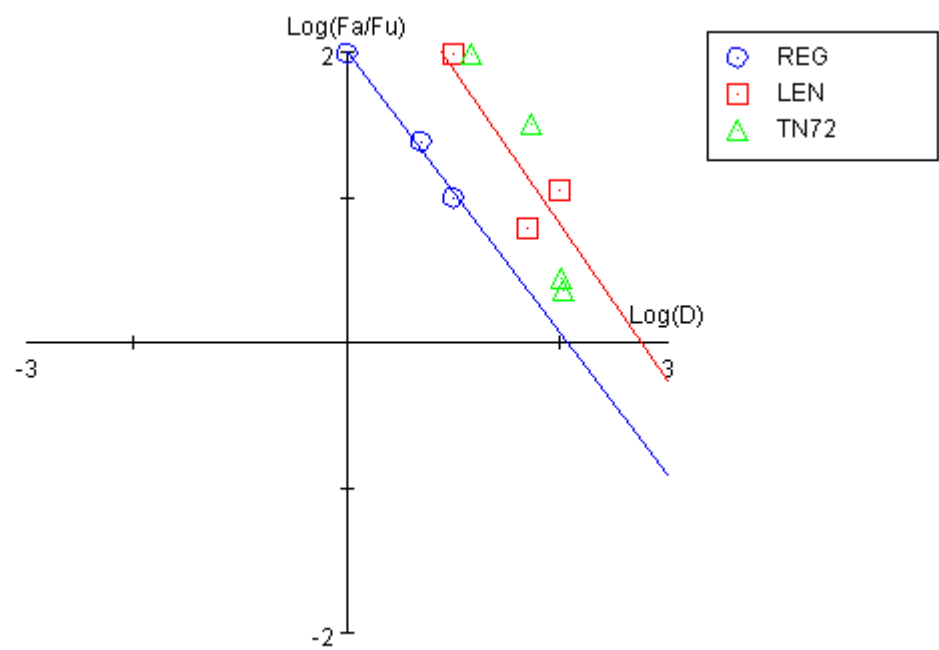
10.0      100.0     0.7

4 data points entered.

Dose-Effect Curve



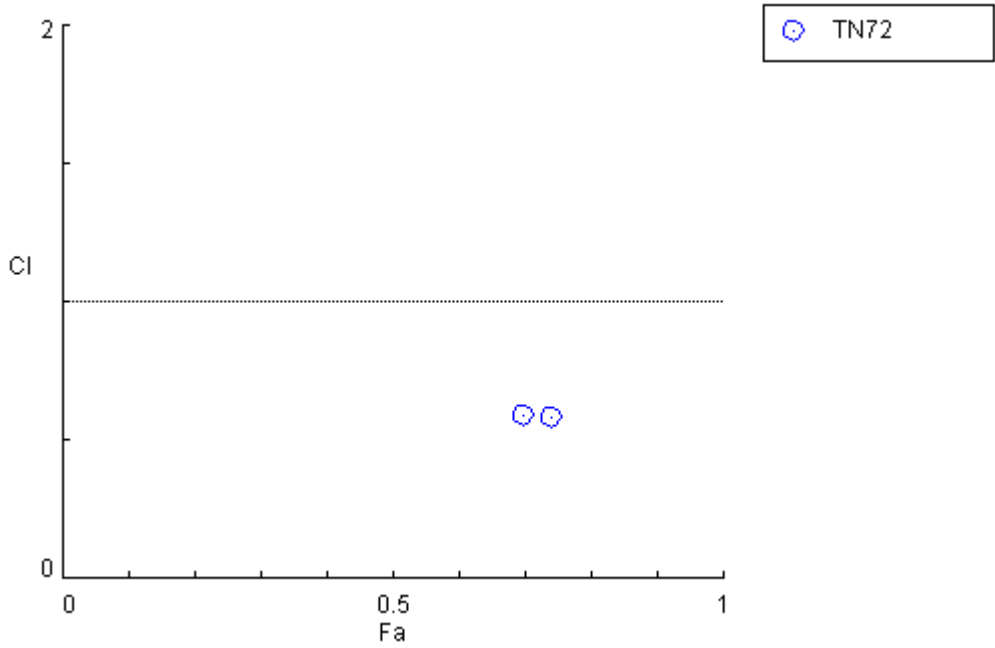
Median-Effect Plot



CI Data for Non-Constant Combo: TN72 (REG+LEN)

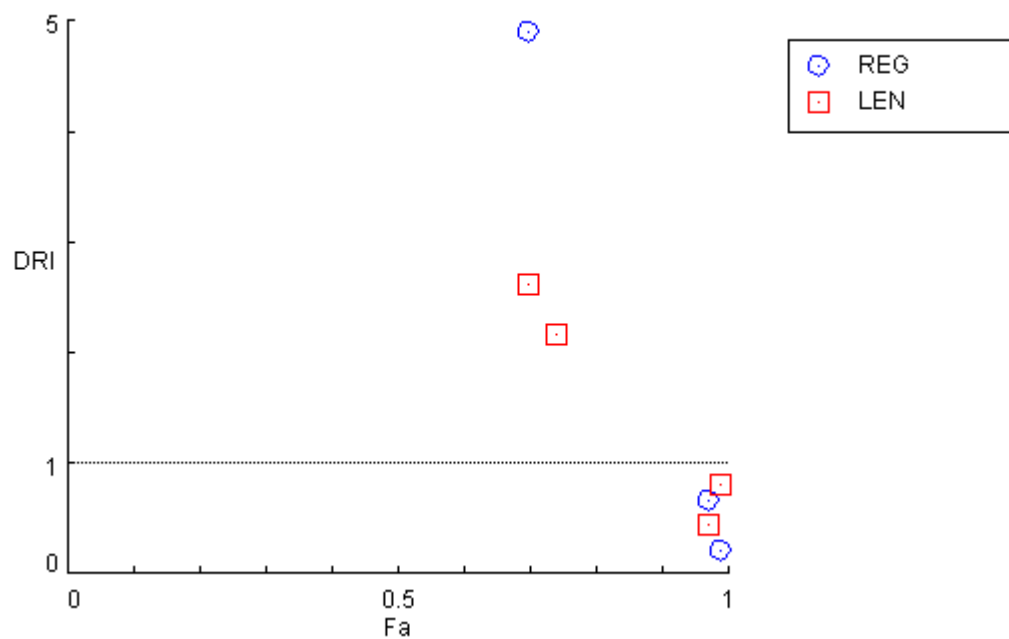
Dose REG	Dose LEN	Effect	CI
5.0	10.0	0.99	6.08257
5.0	50.0	0.97	3.73862
5.0	100.0	0.74	0.58606
10.0	100.0	0.7	0.58703

Combination Index Plot

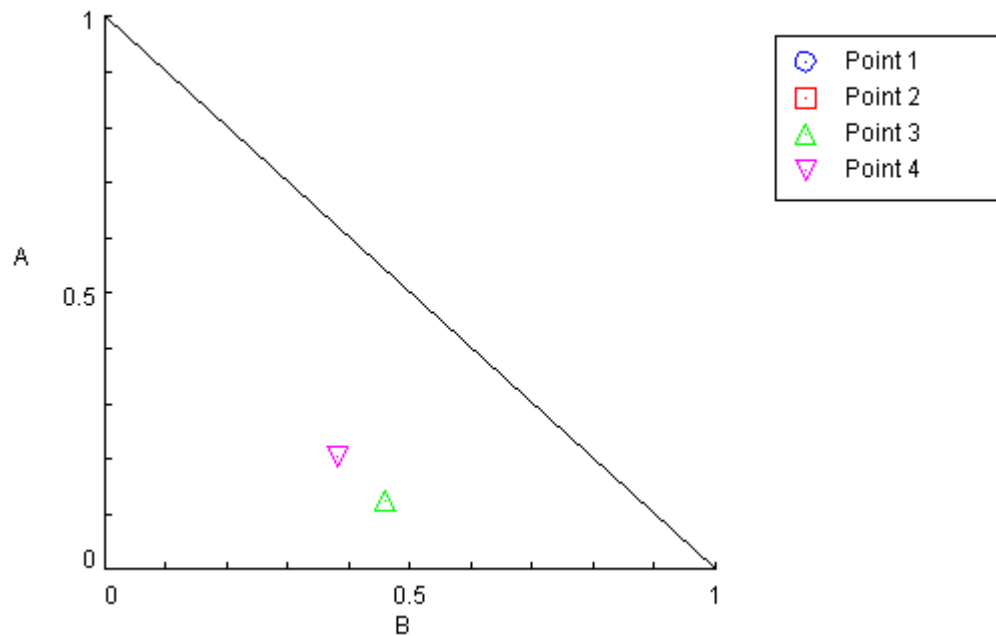


DRI Data for Non-Constant Combo: TN72 (REG+LEN)				
Fa	Dose REG	Dose LEN	DRI REG	DRI LEN
0.99	1.03547	7.97545	0.20709	0.79754
0.97	3.27667	22.5970	0.65533	0.45194
0.74	39.9853	216.912	7.99706	2.16912
0.7	49.0594	260.966	4.90594	2.60966

DRI Plot for Non-Constant Combo: TN72 (REG+LEN)



Normalized Isobologram for Combo: TN72 (REG+LEN)



## Summary Table

**Experiment Name:** REG\_LEN\_72\_TN  
**Date:** 9.5.2021

**File Name:** C:\Users\USER\Downloads\com72\_TN.cse

**Description**

**Drug:** REG (REG) [uM]

**Drug:** LEN (LEN) [uM]

**Drug Combo:** Com72\_TN (TN72) (REG+LEN)

---

<b>Drug/Combo</b>	<b>Dm</b>	<b>m</b>	<b>r</b>
REG	117.364	-0.9714	-0.9962
LEN	574.186	-1.0745	-0.8705

---

CI values at:

**Combo ED50 ED75 ED90 ED95**

---

Data for Fa = 0.5

**Drug/Combo CI value Dose REG Dose LEN**

REG 117.364

LEN 574.186

---

Data for Fa = 0.75

**Drug/Combo CI value Dose REG Dose LEN**

REG 37.8760

LEN 206.541

---

Data for Fa = 0.9

**Drug/Combo CI value Dose REG Dose LEN**

REG 12.2235

LEN 74.2948

---

Data for Fa = 0.95

**Drug/Combo CI value Dose REG Dose LEN**

REG 5.66406

LEN 37.0632

---

Data for Fa = 0.97

**Drug/Combo CI value Dose REG Dose LEN**

REG 3.27667

LEN 22.5970