

**THE MINISTRY OF HEALTH AND FAMILY  
THE INSTITUTE OF PUBLIC HEALTH, BUCHAREST**

Str. Dr. Leonte no. 1-3, 76256, Bucharest, Romania  
Tel. (40 1) 6384010, manager (40 1) 6373210, fax (40 1) 3123426

The following studies were performed to determine the efficacy of the MANORAPID SYNERGY for inactivation of the HIV virus.

**1. CYTOTOXICITY**

The peripheral lymphocytes activated with the PHA were incubated at room temperature with MANORAPID SYNERGY (500 $\mu$ l/2x10<sup>6</sup>) and the percentage of the dead cells were determined. After 1-minute exposure time 100 % of the cells were destroyed.

**2. THE REVERSE TRANSCRIPTASE ACTIVITY**

The measurement of the R.T. activity presents a good marker for the structural integrity of the HIV virus and therefore may be used as an indirect marker of its' infectiousness.

In two experiments 10  $\mu$ l of disintegrated or intact HIV particles were incubated for various periods of time (1,5,10, and 20 minutes) with 10  $\mu$ l of MANORAPID SYNERGY.

The percentage of the remaining R.T. activity is shown in the Table I.

**Table I:**

Time of contact:	% of the R.T activity remaining:	
	Disintegrated HIV:	Intact HIV:
1 minute	4%	52%
5 minutes	0%	0%
10 minutes	0%	0%
20 minutes	0%	0%

**3. THE INFECTIVITY**

The Table II, shows various contact times of the HIV particles with the MANORAPID SYNERGY. After each contact time, the mixture was centrifuged, resuspended and injected into the human Lymphocytes and stimulated with the PHA. The viral replication was detected with the RIA assay. No viral replication was detected after 15 days of incubation.

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**Table II:**

% HIV	Contact TIME (min.)				
	5	15	30	60	120
0.5	-	-	-	-	-
0.25	+	-	-	-	-
0.1	+	+	+	-	-
0.01	+	+	+	+	+

On the basis of the above results The MANORAPID SYNERGY can be recommended for inactivation of the HIV virus with a recommended contact time of 1 minute.

THE INSTITUTE OF PUBLIC HEALTH, BUCHAREST  
LABORATORY OF EPIDEMIOLOGY  
Epidemiologist dr. Anca Balan

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I, the undersigned **SIMONA GRECU**, a Sworn Translator, authorised by the Ministry of Justice by License no. 1373, certify the accuracy of this translation with the text of the authentic document in Romanian which was seen by me.

**GRECU SIMONA**  
Traducător Autorizat M.J.  
Aut. nr.: 1373  
GERMANĂ - ENGLEZĂ

