

**R.G.C.C. - RESEARCH GENETIC CANCER CENTRE S.A.**

Florina, \_\_/\_\_/\_\_\_\_

Dear colleague,

Below are the results from the analysis on a patient Mr./Ms. \_\_\_\_\_ suffering from \_\_\_\_\_ carcinoma stage \_\_\_\_\_. The sample that was sent to us for analysis was a sample of \_\_\_ml of whole blood that contained EDTA-Ca as anti-coagulant, and packed with an ice pack.

Our laboratory processed with the following:

1. Serum isolation from 8ml of whole blood with centrifugation.
2. Specific immunity activation/suppression cytokines were measured by ELISA assay.
3. Flow cytometry run for the requested cell markers directly to whole blood.

The data arising from the two assays were then analyzed and compared to the normal ones.

During the test the environmental temperature was: 23°C ± 1°C.

The results are summarized in the following table:

**Immunity activation/suppression**

Hematopoietic cells	Cell type	Markers/cytokines	control	Result	
CD45 positive cells	B cells	Plasma cells	CD19	-	
		Naïve B cells	CD20	-	
		Memory cells	CD28	-	
	T cells	CD8 (Cytotoxic T Lymphocytes, CTLs)		CD62L	-
			<i>Th1 (cell mediated immunity)</i>	IFN- $\gamma$ (interferon gamma)	7.63 $\uparrow$
		CD4 (T helper cells, T <sub>H</sub> )	<i>Th2 (humoral immunity)</i>	IL-4 (Interleukin 4)	-24.67 $\downarrow$
				IL-6 (Interleukin 6)	-31.04 $\downarrow$
				IL-2 (Interleukin 2)	-2.86 $\downarrow$
		<i>Th3 (suppressed immunity)</i>	TNF- $\alpha$ (Tumor Necrosis Factor alpha)	-4.47 $\downarrow$	
		Memory cells	T regulatory cells (Tregs)	CD25 CTLA4	- -
		Antigen Presenting Cells (APCs)	Dendritic cells (DCs)		CD28
				CD80	1.37 $\uparrow$
				CD86	-

**Results discussion**

The ELISA assay results of patient Mr /Ms \_\_\_\_\_ show that there is down-regulation of immunity. According to the ELISA analysis the deactivation of the humoral mainly immunity based on overproduction of relevant factors like IL-2.

This Test Report is issued based on testing the sample / specimen examined by the Laboratory.

Modification of data, selective breeding and using portions of this test report is forbidden. The laboratory assumes no liability for improper use or improper interpretation of the results.

Mr./Ms. \_\_\_\_\_

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