Supplementary materials for High expression of PD-1 in circulating cells of patients with advanced colorectal cancer receiving adjuvant therapy

This file includes:

Table SI

27 Table SI. Tested immune genes with their details.

Immune Gene Symbol	Synonym (s)	Cytogenetic Band	Roles in Immunity
IFN γ	Interferon-gamma; IFG; IFI	12q15	IFNγ is related to high susceptibility to different infections and to several autoimmune diseases [12]. IFN-γ-driven tumor microenvironment shows a better prognostic result in the tumor [3]. It induces Class II major histocompatibility complex (MHC) molecule expression and an activator of macrophages [2,4].
PD-1	Programmed cell death 1; CD279; hPD-1; CD279; SLEB2	2q37.3	In the human body, PD-1 functions in the regulation of the immune system's response to the cells. It works by increasing self-tolerance by suppressing the inflammatory activity of the T cell and down-regulation of the immune system [5,6]. Autoimmune diseases prevented by this gene. Besides, it prevents the immune system from killing cancer cells [7–9]. This gene is also expressed in pro-B-cells and may differentiate them [10,11].
β2M	beta-2 microglobulin; Ly-m11; beta2m; beta2-m	15q21.1	Altered expression of β2M defines MMR-deficient cancers with a favorable clinical course in addition lack of metastatic diseases [12–15].
CD3e	CD3e Molecule; T3E; TCRE; IMD18	11q23.3	CD3e is linked cell-surface proteins of the immunoglobulin superfamily. It contains a

			domain of single extracellular immunoglobulin [16–19].
CD28	CD28 molecule; Tp44	2q33.2	For cytokine production, T-cell survival and proliferation and T-helper type-2 development, the protein encoded this gene is required [20,21]. This gene belongs to a family and that creates a dynamic network which modulates immune response's initiation, maintenance, and termination [22–24].
HLA-A	Major histocompatibility complex, class I, A	6p22.1	HLA-A presents vaccinia virus antigens to T cells, thus initiates adaptive immune responses [25,26].
ICAM 1	Intercellular adhesion molecule 1; CD54; P3.58; BB2	19p13.2	ICAM 1 gene translates a glycoprotein in the cell surface. Expression of this glycoprotein normally happens on cells of the immune system and endothelial cells [27–29].

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