

ImmunoTools IT-Box-139 Award 2012



Vincent Le Coz

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IL-15 sensitizes renal tumor stem cells to anti-tumor therapy by its differentiating action. Influence of the TGF β , a tumor microenvironmental parameter

The existence in renal tumors of cancer stem cells (CSC/CD105⁺), resistant to standard therapies responsible for tumor recurrence, requires the development of strategies for their elimination. Our recent results show that interleukin-15 (IL-15) induces the differentiation of CSC/CD105⁺ to epithelial nontumorigenic cells more sensitive to cytotoxic agents. However, this study did not take into account the tumor microenvironment that protects the CSC in the kidney and could therefore hamper the IL-15 differentiating effect. This project aims to show that the TGF β , which is involved in the emergence and preservation of stemness of several cell types, is an important factor in tumor microenvironment responsible for resistance to treatment. It is likely that TGF β can counteract the IL-15-induced differentiation of renal CSC in preserving the stem cell phenotype. A better understanding of the action of TGF β on CSC/CD105⁺ is essential to consider a CSC differentiation therapy using IL-15, a cytokine currently being tested in clinical trials for its renal cancer immunostimulating action.

This project aims to show that TGF β is an important parameter of renal tumor microenvironment as a) could sustain the stemness of renal CSC/CD105⁺ b) obstruct IL-15-differentiating activity. The mechanisms involved in this processus will be studied.

ImmunoTools IT-Box-139 for Vincent Le Coz include 100 antibodies

FITC - conjugated anti-human CD1a, CD3, CD4, CD5, CD6, CD7, CD8, CD14, CD15, CD16, CD19, CD21, CD25, CD29, CD35, CD36, CD41a, CD42b, CD45, CD45RA, CD45RB, CD45RO, CD49d, CD53, CD57, CD61, CD63, CD80, CD86, HLA-DR, IL-6, Control-IgG1, Control-IgG2a, Control-IgG2b, Annexin V

PE - conjugated anti-human CD3, CD4, CD8, CD11b, CD15, CD14, CD18, CD19, CD20, CD21, CD22, CD31, CD33, CD38, CD40, CD45, CD45RB, CD50, CD52, CD56, CD58, CD62p, CD72, CD95, CD105, CD147, CD177, CD235a, HLA-ABC, IL-6, Control-IgG1, Control-IgG2a, Control-IgG2b, Annexin V

PE/Dy647 -tandem conjugated anti-human CD3, CD4, CD8, CD14, CD19, CD20, CD25, CD54

APC -conjugated anti-human CD2, CD3, CD4, CD8, CD10, CD11a, CD11c, CD14, CD16, CD27, CD37, CD42b, CD44, CD45, CD59, CD62L, CD69, CD71, IL-6, Control-IgG1, Control-IgG2a, Control-IgG2b, Annexin V

[DETAILS](#)