

Multiplexed Immunofluorescence Analysis and Quantification of Intratumoral PD-1+ Tim-3+ CD8+ T Cells

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R�sum� en anglais	Immune cells are important components of the tumor microenvironment and influence tumor growth and evolution at all stages of carcinogenesis. Notably, it is now well established that the immune infiltrate in human tumors can correlate with prognosis and response to therapy. The analysis of the immune infiltrate in the tumor microenvironment has become a major challenge for the classification of patients and the response to treatment. The co-expression of inhibitory receptors such as Program Cell Death Protein 1 (PD1; also known as CD279), Cytotoxic T Lymphocyte Associated Protein 4 (CTLA-4), T-Cell Immunoglobulin and Mucin Containing Protein-3 (Tim-3; also known as CD366), and Lymphocyte Activation Gene 3 (Lag-3; also known as CD223), is a hallmark of T cell exhaustion. We developed a multiparametric in situ immunofluorescence staining to identify and quantify at the cellular level the co-expression of these inhibitory receptors. On a retrospective series of frozen tissue of renal cell carcinomas (RCC), using a fluorescence multispectral imaging technology coupled with an image analysis software, it was found that co-expression of PD-1 and Tim-3 on tumor infiltrating CD8 T cells is correlated with a poor prognosis in RCC. To our knowledge, this represents the first study demonstrating that this automated multiplex in situ technology may have some clinical relevance.
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- [1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38015>
- [2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38016>
- [3] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38017>
- [4] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38018>
- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38019>
- [6] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=33442>
- [7] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38020>
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- [12] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38025>
- [13] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38026>
- [14] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38027>
- [15] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38028>
- [16] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38029>
- [17] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=38030>
- [18] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=28800>
- [19] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=10278>
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- [22] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=991>
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- [24] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=28544>
- [25] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=6125>
- [26] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=19902>
- [27] <http://okina.univ-angers.fr/publications/ua19908>
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