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Elispot, the assay of choice to evaluate vaccine efficacity in clinical trials!

Monitoring immune response of patients treated with immunotherapy is essential to evaluate the efficacity of treatment and correlate clinical responses to Cytotoxic T Lymphocyte (CTL) responses.
Elispot assays are specific, accurate, sensitive, precise and robust. For these reasons, this bioassay is now recognized as the reference method to evaluate vaccine efficacity in clinical trials.

The use of Elispot assay as a predictive tool in immunotherapy emerges especially in cancer[1,2,3] and infectious diseases[4].

- **Cancerology**

  The identification of tumor antigens as target structures of $CD8^+$ CTL has led to the development of vaccination strategies. Many studies have been made on the melanoma. The detection of melanoma-specific T-cell spots in IFNγ Elispot assay could be predictive of anti tumoral clinical responses[2,3].

- **Vaccination**

  It is proven that the Elispot assay is a good approach to evaluate vaccination strategies in many infectious diseases : HIV[4], EBV[6], hepatitis C virus.

- **Transplantation**

  The Elispot assay could also be useful in the prediction of infectious risk after transplantation[7].

However, these fields of application are not exhaustive, the Elispot assay takes an important place in auto-immunity, allergy, TH1 / TH2 analysis, pharmacology…

References

1. Scheibenbogen C. *et al*., 2000. Quantitation of antigen-reactive T cells in peripheral blood by IFNγ-Elispot assay and chromium-release assay: a four-centre comparative trial. *J Immunol Methods* 244: 81-89
2. Belli F. *et al*., 2002. Vaccination of metastatic melanoma patients with autologous tumor-derived heat shock protein gp96-peptide complexes: clinical and immunologic findings. *J Clin Oncol* 20: 4169
3. Banchereau J. *et al*., 2001. Immune and clinical responses in patients with metastatic melanoma to CD34(+) progenitor-derived dendritic cell vaccine. *Cancer Res* 61(17): 6451-8
4. Mwau M. *et al*., 2002. Designation and validation of an enzyme-linked immunospot assay for use in clinical trials of candidate HIV vaccines. *AIDS* 18 (9): 611-618
5. Cao H *et al*., 2003. Immunogenicity of a recombinant human immunodeficiency virus (HIV)-canarypox vaccine in HIV-seronegative Ugandan volunters: results of the HIV network for prevention trials vaccine study. *J Infect Dis* 187 (6): 887-895
6. Yang J. *et al*., 2000. Application of the Elispot assay to the characterization of CD8+ responses to Epstein-Barr virus antigens. *Blood* 95 (1): 241-248
7. Hebart H. *et al*., 2002 Sensitive detection of human cytomegalovirus peptide-specific cytotoxic T-lymphocyte responses by interferon-gamma-enzyme-linked immunospot assay and flow cytometry in healthy individuals and in patients after allogenic stem cell transplantation. *Blood* 99 (10): 3830-7

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Kit contents

Elispot kit contents:
(available in 1 plate, 5 plates, 10 plates, 15 plates or 20 plates)

- Capture and detection antibodies
- Streptavidin Alkaline Phosphatase conjugate
- Buffers
- Blocking reagent
- Ready-to-use substrate buffer
- With or without sterile or non sterile PVDF plates

Elispot Matched Antibody pair contents:
(available in 10x96 tests)

- Capture antibody ready-to-use
- Detection antibody ready to use

Diaclone Elispot reagents

Elispot complete kit

Human		Mouse	Rat
CD178/ Fas L	IL-13	IFNγ	IFNγ
IFNγ	Granzyme B	IL-2	IL-4
IL-1β	TNF-α		TNF-α
IL-2	IFNγ / IL-2		
IL-4	IFNγ / IL-4		
IL-5	IFNγ / IL-5		
IL-6	IFNγ / IL-10		
IL-10	IL-10 / IL-2		
IL-12	IFNγ / IL-2		
Perforin	IL-10 / IL-4		
	IFNg/Gr B		

Elispot Matched Antibody Pairs

Human		Mouse	Rat
CD178/ Fas L	IL-6	IFNγ	IFNγ
IFNγ	IL-10	IL-2	IL-4
IL-1β	IL-12		TNF-α
IL-2	IL-13		
IL-4	TNF-α		
IL-5			

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