

Accepted Manuscript

Title: A monoclonal antibody for detection of intracellular and secreted interleukin-2 in horses

Authors: Heather Freer, Julia M. Hillegas, Christine Wimer, Cynthia Baldwin, Joanna LaBresh, Bettina Wagner



PII: S0165-2427(17)30075-2
DOI: <http://dx.doi.org/doi:10.1016/j.vetimm.2017.07.011>
Reference: VETIMM 9656

To appear in: *VETIMM*

Received date: 13-2-2017
Revised date: 26-7-2017
Accepted date: 30-7-2017

Please cite this article as: Freer, Heather, Hillegas, Julia M., Wimer, Christine, Baldwin, Cynthia, LaBresh, Joanna, Wagner, Bettina, A monoclonal antibody for detection of intracellular and secreted interleukin-2 in horses. *Veterinary Immunology and Immunopathology* <http://dx.doi.org/10.1016/j.vetimm.2017.07.011>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A monoclonal antibody for detection of intracellular and secreted interleukin-2 in horses

Heather Freer¹, Julia M. Hillegas¹, Christine Wimer¹, Cynthia Baldwin², Joanna LaBresh³,
Bettina Wagner¹

¹ Department of Population Medicine and Diagnostic Sciences, College of Veterinary Medicine, Cornell University, Ithaca, NY, USA; ²Paige Laboratory, Department of Veterinary and Animal Sciences, University of Massachusetts, Amherst, MA, USA; ³Kingfisher Biotech Inc., St. Paul, MN, USA

Corresponding author:

Bettina Wagner

Department of Population Medicine and Diagnostic Sciences

College of Veterinary Medicine

Cornell University

Ithaca, NY 14853, USA

Phone: 607-253-3755

e-mail: bw73@cornell.edu

Highlights:

- A mAb against equine IL-2 was developed
- IL-2 is mainly produced by equine CD4⁺ and also few CD8⁺ equine lymphocytes
- A sensitive fluorescent bead assay was generated for quantification of equine IL-2
- PMA and ionomycin most effectively induce IL-2 production in equine PBMC

Abstract

Interleukin-2 (IL-2) is a T cell growth factor and major modulator of T helper (Th) cell differentiation. Here, we have developed and characterized a monoclonal antibody to equine IL-2 (anti-IL-2 mAb, clone 158-1). The IL-2 mAb detected *r*IL-2 by ELISA, intracellular staining and flow cytometry analysis and Western blotting. The IL-2 mAb was also paired with a polyclonal

Download English Version:

<https://daneshyari.com/en/article/5544791>

Download Persian Version:

<https://daneshyari.com/article/5544791>

[Daneshyari.com](https://daneshyari.com)