

Accepted Manuscript

Title: Calcitriol-mediated reduction in IFN- γ output in T cell large granular lymphocytic leukemia requires vitamin D receptor upregulation

Authors: M. Paige Kulling, C. Kristine Olson, L. Thomas Olson, E. Cait Hamele, N. Kathryn Carter, J. David Feith, P. Thomas Loughran Jr.



PII: S0960-0760(17)30174-7
DOI: <http://dx.doi.org/doi:10.1016/j.jsbmb.2017.07.009>
Reference: SBMB 4975

To appear in: *Journal of Steroid Biochemistry & Molecular Biology*

Received date: 12-4-2017
Revised date: 6-7-2017
Accepted date: 12-7-2017

Please cite this article as: M.Paige Kulling, C.Kristine Olson, L.Thomas Olson, E.Cait Hamele, N.Kathryn Carter, J.David Feith, P.Thomas Loughran, Calcitriol-mediated reduction in IFN- γ output in T cell large granular lymphocytic leukemia requires vitamin D receptor upregulation, *Journal of Steroid Biochemistry and Molecular Biology*<http://dx.doi.org/10.1016/j.jsbmb.2017.07.009>

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.

Calcitriol-mediated reduction in IFN- γ output in T cell large granular lymphocytic leukemia requires vitamin D receptor upregulation

Kulling, Paige M;^{1,2,3} Olson, Kristine C;^{1,2} Olson, Thomas L;^{1,2} Hamele, Cait E;^{1,2} Carter, Kathryn N;^{1,2} Feith, David J;^{1,2} Loughran Jr., Thomas P.^{1,2}

¹University of Virginia Cancer Center ²Department of Medicine, Division of Hematology/Oncology ³Department of Pathology; University of Virginia; Charlottesville, VA USA 22908

Corresponding author: Thomas P. Loughran, Jr. Email tl7cs@virginia.edu

Highlights

- IFN- γ levels and p-STAT1 are reduced by calcitriol within 4 h in TL-1 cell line.
- IFN- γ is transcriptionally suppressed by calcitriol and requires VDR upregulation.
- Reduction in p-STAT1 by calcitriol does not require VDR upregulation.
- Calcitriol inhibits IFN- γ and p-STAT1 through independent mechanisms.
- In the absence of calcitriol, VDR levels correlate with IFN- γ production.
- Calcitriol reduces IFN- γ to a similar amount regardless of basal VDR levels.

ABSTRACT

Constitutively activated STAT1 and elevated IFN- γ are both characteristic of T cell large granular lymphocytic leukemia (T-LGLL), a rare incurable leukemia with clonal expansion of cytotoxic T cells due to defective apoptosis. Interferon gamma (IFN- γ) is an inflammatory

Download English Version:

<https://daneshyari.com/en/article/8337890>

Download Persian Version:

<https://daneshyari.com/article/8337890>

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