

## Accepted Manuscript

Title: Targeting the tumor promoting effects of adenosine in chronic lymphocytic leukemia

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PII: S1040-8428(17)30520-6

DOI: <https://doi.org/10.1016/j.critrevonc.2018.03.022>

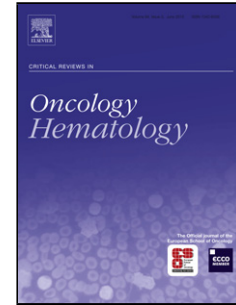
Reference: ONCH 2536

To appear in: *Critical Reviews in Oncology/Hematology*

Received date: 25-11-2017

Revised date: 27-2-2018

Accepted date: 25-3-2018



Please cite this article as: Cai Y, Feng L, Wang X, Targeting the tumor promoting effects of adenosine in chronic lymphocytic leukemia, *Critical Reviews in Oncology / Hematology* (2018), <https://doi.org/10.1016/j.critrevonc.2018.03.022>

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# Targeting the tumor promoting effects of adenosine in chronic lymphocytic leukemia

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## Contents

1. Introduction.....	2
2. Generation of ADO in CLL TME.....	3
3. ADO and ADO receptors.....	4
4. ADO and CLL.....	4
4.1 ADO and CLL cells.....	5
4.2 ADO and TME cells in CLL.....	5
4.2.1 ADO and T cell.....	5
4.2.2 ADO and B cell.....	7
4.2.3 ADO and dendritic cells, natural killer T cells and macrophages.....	8
4.2.4 ADO and vascular cells.....	9
4.2.5 ADO and fibroblasts.....	9
4.2.6 ADO and cytokines.....	10
Summary.....	11
Funding.....	12
Authors' contributions.....	13
Conflict of interest.....	13
Reference.....	13

## ABSTRACT

Chronic lymphocytic leukemia (CLL) is a hematological malignancy which is characterized by progressive accumulation of functionally deficient B cells in blood, bone marrow, and lymphatic tissue. The tumor microenvironment (TME) appears to play a critical role in genesis and progression of CLL. High levels of extracellular adenosine (ADO) are detected in CLL as a consequence of expression of ecto-enzymes, such as CD39 and CD73. Extracellular ADO exhibits a broad range of effects on cell cycle control, immunoregulation, angiogenesis and cytokine regulation through both direct and indirect mechanisms. In this review, we focused on the multiple functions and related mechanisms of ADO signaling in CLL generation and progression.

## ARTICLE INFO

**Keywords:** Chronic lymphocytic leukemia Tumor microenvironment Adenosine

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