

Bukti Korespondensi

Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models

Authors: Sugeng Ibrahim, Agung Putra, Nurul Hidayah, Dini Cahyani

Corresponding author : Sugeng Ibrahim

1. Submission

The screenshot displays a journal submission interface. On the left is a sidebar with navigation links: Submissions, Issues, Announcements, Settings (Journal, Website, Workflow, Distribution, Users & Roles), Statistics (Articles, Editorial Activity, Users, Reports), and Tools. The main content area has a breadcrumb trail: 450 / Ibrahim et al. / Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models. Below this are tabs for Workflow and Publication. The Publication tab is active, showing sub-tabs for Submission, Review, Copyediting, and Production. The Submission sub-tab is selected, displaying 'Submission Files' and 'Pre-Review Discussions'.

Submission Files

ID	File Name	Date	Type
1118	Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models.docx	August 19, 2025	Article Text
1152	Review 450.docx	August 23, 2025	Article Text

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Pre-Review Discussions

Name	From	Last Reply	Replies	Closed
Pengecekan Similarity	atina_farmasi	-	0	<input type="checkbox"/>
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**INDONESIAN JOURNAL OF
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Indonesia
email : info@ijmps.id
Phone: (024) 6583584
Published by:
Sultan Agung Islamic University of Semarang

Submission Acknowledgement

ID: IJMPS-450
Title: *Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models*

Authors: Sugeng Ibrahim, Agung Putra, Nurul Hidayah, Dini Cahyani

Date: 19.08.2025.

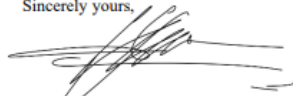
Dear Authors,

We are pleased to confirm that your manuscript entitled "*Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models*" by Ibrahim *et al* has been submitted in the **Indonesian Journal of Medical and Pharmaceutical Science**.

If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

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2. Peer Review Process – Pengecekan Similarity

Messages

Note	From
Yth. Author	atina_farmasi
Kami telah mengecek plagiarisme artikel anda menggunakan aplikasi turnitin, hasilnya 19% (sesuai syarat, sehingga artikel diterima). Selanjutnya artikel anda akan ke tahap berikutnya.	2025-08-23 05:48 AM
Regards,	
Atina	
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Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models

by Dwi Endah

Submission date: 23-Aug-2025 12:41PM (UTC+0700)
Submission ID: 2653217497
File name: Tls_in_Colorectal_Cancer_HCT-116_Cells_Co-Culture_Models_1.docx (1.16M)
Word count: 3053
Character count: 19224

Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models

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Letter of Acceptance

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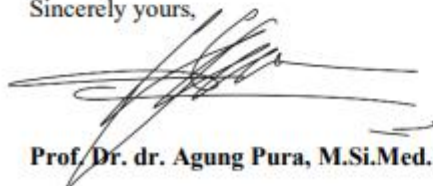
Date: 26.08.2025.

Dear Authors,

We are pleased to confirm that your manuscript entitled "*Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models*" by Ibrahim *et al* has been accepted for published on Volume 2 Number 4, Agustus 2025, in the **Indonesian Journal of Medical and Pharmaceutical Science**.

Thank you very much for submitting your manuscript to the Indonesian Journal of Medical and Pharmaceutical Science.

Sincerely yours,



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Editor in chief

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5. Copyediting

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The screenshot shows a Microsoft Word document titled '450+copyediting (1) - Word'. The document is a research article for the 'Indonesian Journal of Medical and Pharmaceutical Science'. The title is 'Effector Cytokine Profiles of Ex Vivo Expanded CTLs in Colorectal Cancer HCT-116 Cells Co-Culture Models' by Sugeng Ibrahim^{a*}, Agung Putra^{a,4}, Nurul Hidayah^{a,5}, and Dini Cahyani^{a,6}. The article is marked as 'Open Access'. The abstract states: 'Background: Colorectal cancer (CRC) remains a major cause of cancer-related mortality worldwide, with limited benefit from conventional therapies in advanced disease. Cytotoxic T lymphocytes (CTLs, CD8⁺ T cells) are critical mediators of anti-tumor immunity, primarily through direct cytotoxicity and cytokine secretion. However, the dual roles of CTL-derived cytokines, particularly Interferon- γ (IFN- γ), tumor necrosis factor- α (TNF- α), and Interleukin-6 (IL-6), in CRC progression remain incompletely understood. This study aims to analyze the cytokine profile (IFN- γ , TNF- α , and IL-6) in a CTL-CRC cell direct co-culture model. Methods: CD8⁺ T cells were isolated from peripheral blood mononuclear cells (PBMCs) of CRC patients using magnetic negative selection and activated for 5 days with anti-CD3/CD28 beads and IL-2. Purity and viability were assessed by flow cytometry and morphology. Activated CTLs were co-cultured with the HCT116 CRC cell line at effector-to-target (E:T) ratios of 1:1, 5:1, and 10:1 under direct contact for 48 h. Supernatants were collected and cytokine levels (IFN- γ , TNF- α , and IL-6) were quantified using validated sandwich ELISA kits. Results: Direct co-culture with HCT116 cells significantly increased cytokine secretion in an E:T ratio-dependent manner. IFN- γ secretion rose from 3044.6 \pm 120 pg/mL at 1:1 to 4882.1 \pm 198 pg/mL at 5:1, plateauing thereafter. TNF- α levels remained relatively constant (628.6 \pm 67 pg/mL at 1:1 vs. 674.0 \pm 91 pg/mL at 10:1). IL-6, nearly undetectable at 1:1 (0.4 \pm 0.1 pg/mL), increased dose-dependently to 5.1 \pm 0.9 pg/mL at 10:1. Conclusion: Ex vivo expanded CTLs from CRC patients exhibit a distinct cytokine secretion profile characterized by robust IFN- γ release, stable TNF- α production, and a dose-dependent increase in IL-6 across different effector-to-target ratios. Keywords: Co Culture; Cytotoxic T Lymphocytes; HCT-116; Immunotherapy; Pro-inflammatory Cytokines'. The document footer indicates 'Page 1 of 7', '3013 words', 'English (United States)', and 'Accessibility: Investigate'.

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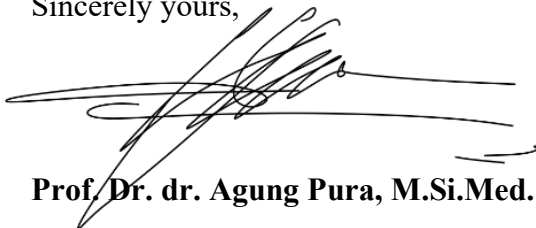
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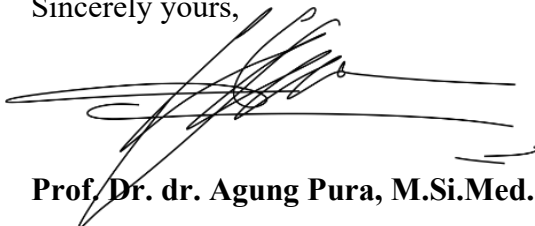
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