

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 63885

Title: Innate and adaptive immune escape mechanisms of hepatitis B virus

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03765308

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Doctor, Professor

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: China

Manuscript submission date: 2021-02-04

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-06-26 07:54

Reviewer performed review: 2021-07-04 06:05

Review time: 7 Days and 22 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The reviewers made a comprehensive summary of innate and adaptive immune escape mechanism of HBV. They also give a discussion on current and future anti-HBV therapy. Comments 1. INTRODUCTION: Please describe the mechanism of HBV escape from immune surveillance. Such as neonatal immune tolerance and HLA-DP and -DQ antigen presenting system. 2. HBV ESCAPES INNATE IMMUNE SURVEILLANCE: Reader will be appreciated to have a figure that demonstrate the interaction between HBV and innate immunity. Potential response with HBsAg, HBcAg, HBeAg and HBxAg. 3. HBV infection and type-I interferon (IFN-I): It will be better to start with spontaneous IFN secretion in resting stage of HBsAg carriers. IFN secretion is quite low at this stage that is compatible with the immune tolerance situation. The first paragraph seems to describe the response after interferon administration. 4. HBV infection and macrophages: Kupffer cells is a tissue-resident macrophages in the liver sinusoids. Please describe its function in liver during inflammation. 5. HBV infection and NK cells: Please strengthen the main effector cells by "NK cells constitute up to 40-50% of human liver lymphocytes". 6. HBV ESCAPES ADAPTIVE IMMUNE SURVEILLANCE: Please give a brief description concerns about HLA-II on HBV anti-gen presentation and persistent infection.