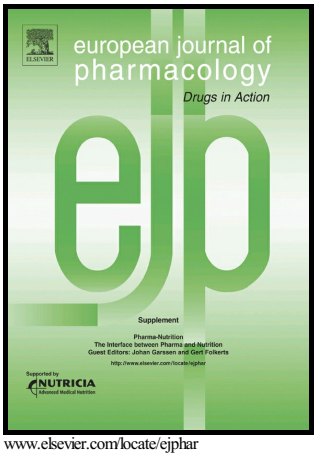
Author's Accepted Manuscript

Role of N-acetyl galactosamine-4-SO_4, a ligand of CD206 in HSV-induced mouse model of Behçet's disease

Bunsoon Choi, Hasan M. Sayeed, S.M. Shamsul Islam, Seonghyang Sohn



www.elsevier.com/locate/ejphar

PII: S0014-2999(17)30467-3
DOI: http://dx.doi.org/10.1016/j.ejphar.2017.07.022
Reference: EJP71314

To appear in: *European Journal of Pharmacology*

Received date: 3 March 2017
Revised date: 6 July 2017
Accepted date: 7 July 2017

Cite this article as: Bunsoon Choi, Hasan M. Sayeed, S.M. Shamsul Islam an Seonghyang Sohn, Role of N-acetyl galactosamine-4-SO_4, a ligand of CD206 i HSV-induced mouse model of Behçet's disease, *European Journal o Pharmacology,* http://dx.doi.org/10.1016/j.ejphar.2017.07.022

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

ACCEPTED MANUSCRIPT

Role of N-acetyl galactosamine-4-SO_4, a ligand of CD206 in HSV-induced mouse model of Behçet's disease.

Bunsoon Choi[1a], Hasan M. Sayeed[2a], S. M. Shamsul Islam[2], Seonghyang Sohn[1,2*]

[1]Department of Microbiology, Ajou University School of Medicine, Suwon 443-380, Korea;

[2]Department of Biomedical Science, Ajou University School of Medicine, Suwon 443-380, Korea;

*Author to whom correspondence should be addressed Seonghyang Sohn; E-Mail: sohnsh@ajou.ac.kr; Tel.: +82-31-219-4510; Fax: +82-31-219-5079

Accepted manuscript

Abstract: CD206 is a macrophage mannose receptor involved in variety of autoimmune and inflammatory diseases. This study aimed to identify the pathogenic role of CD206 in a herpes simplex virus (HSV) induced Behçet's disease (BD) mouse model. CD206 positive cells were detected in peripheral blood mononuclear cells and quantified by flow cytometry. Levels of cytokines were measured by ELISA. CD206 was found to be down-regulated both *in vitro* (10^{-6} M) and *in vivo* (200 μg/mouse) after treatment with N-acetylgalactosamine (GalNAc), a ligand for CD206. The down-regulation of CD206 was correlated with improvement in BD symptoms. Colchicine (2 μg/mouse) or pentoxifylline (400 μg/mouse) treated mice displayed improvement in BD symptoms with fewer CD206 positive cells. The prevalence of CD206-positive cells differed between ligand-responsive and non-responsive BD mice. Inhibition of CD206 was associated with down-regulated serum level of interleukin-17 in GalNAc-treated BD mice. These results suggest that the expression of CD206 is correlated with HSV-induced BD symptoms in mice, implicating that CD206 might have a pathogenic role in BD.

Keywords: Behçet's disease, CD206, N-acetylgalactosamine, mouse model

---

[a] Choi B and Sayeed MH contributed equally to this work.

Download English Version:

https://daneshyari.com/en/article/5554397

Download Persian Version:

https://daneshyari.com/article/5554397

Daneshyari.com