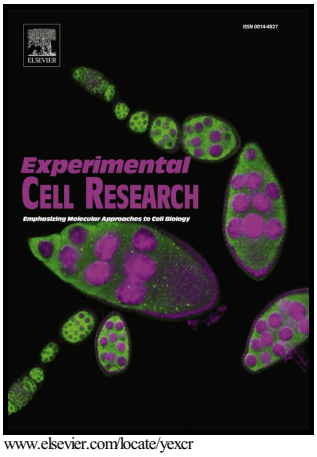
Neutrophil CD16b crosslinking induces lipid raft-mediated activation of SHP-2 and affects cytokine expression and retarded neutrophil apoptosis

H. Yang, H. Jiang, Y. Song, D.J. Chen, X.J. Shen, J.H. Chen



www.elsevier.com/locate/yexcr

PII: S0014-4827(17)30614-6
DOI: https://doi.org/10.1016/j.yexcr.2017.11.009
Reference: YEXCR10809

To appear in: *Experimental Cell Research*

Received date: 31 July 2017
Revised date: 7 November 2017
Accepted date: 8 November 2017

Cite this article as: H. Yang, H. Jiang, Y. Song, D.J. Chen, X.J. Shen and J.H. Chen, Neutrophil CD16b crosslinking induces lipid raft-mediated activation of SHP-2 and affects cytokine expression and retarded neutrophil apoptosis, *Experimental Cell Research,* https://doi.org/10.1016/j.yexcr.2017.11.009

Neutrophil CD16b crosslinking induces lipid raft-mediated activation of SHP-2 and affects cytokine expression and retarded neutrophil apoptosis

Yang H[1,2], Jiang H[1,2], Song Y[1,2], Chen DJ[1,2], Shen XJ[1,2], Chen JH[1,2*]

[1]Kidney Disease Center, First Affiliated Hospital, Zhejiang University, School of Medicine; Key Laboratory of Nephropathy, Zhejiang Province, Hangzhou, Zhejiang, China.

[2]National Clinical Research Base of Traditional Chinese Medicine, Zhejiang Hospital of Traditional Chinese Medicine, Zhejiang Chinese Medical University, Hangzhou, China.

*Corresponding author. Address: Qingchun Road 79#, Hangzhou, Zhejiang Province, China. chenjianghua@zju.edu.cn

Abstract

Two different types of FcRs for IgG are constitutively expressed on the surface of human neutrophils, namely, FcγRIIA (CD32a) and FcγRIIIB (CD16b). Unlike FcγRIIA, FcγRIIIb is GPI anchored to the cell membrane and its signal transduction is still ambiguous. To further understand the signal transduction of CD16b, we compared neutrophil cytokine expression and apoptosis by the cross-linking of CD32a and CD16b respectively. We found that both CD32a and CD16b crosslinking can activate neutrophils, but did not exactly share cytokine expression