中国感染控制杂志 2012, 11(4) 241-246 DOI: ISSN: 1671-9638 CN: 43-1390/R

论著

CD81和LDLR在不同妊娠时期绒毛组织中的定位与表达

聂青和

第四军医大学唐都医院，陕西西安710038

摘要：

目的检测CD81、低密度脂蛋白受体（LDLR）在人胎盘绒毛组织滋养层细胞中mRNA表达水平，了解一些可能参与丙型肝炎病毒（HCV）入胞的宿主因子表达。方法通过逆转录聚合酶链反应（RT PCR）检测CD81、LDLR在人胎盘绒毛组织滋养层细胞中mRNA表达水平，并采用免疫荧光方法检测CD81、LDLR在不同孕期胎盘绒毛组织的表达。结果发现不同孕期胎盘绒毛组织的CD81、LDLR表达量随孕期呈递增趋势。采用免疫荧光方法证实了CD81、LDLR在不同孕期胎盘绒毛组织的表达。结论胎盘绒毛组织滋养层细胞中可以定位并表达HCV入胞的宿主相关因子CD81、LDLR。为进一步研究CLEC4M传播HCV的分子机制奠定了实验基础。

［中图分类号］R512.6+3

关键词： 滋养层细胞 人体；肝炎病毒 丙型；CD81；低密度脂蛋白受体；绒毛组织；母婴传播

Localization and expression of CD81 and LDLR in placental villi during different stages of pregnancy

NIE Qing he

Tangdu Hospital of the Fourth Military Medical University, Xi’ an 710038, China

Abstract:

ObjectiveTo detect the expression of CD81 and low density lipoprotein receptor (LDLR) mRNA in cultured human trophoblast cells from different placental villi, and to explore HCV entry mechanisms.MethodsCD81 and LDLR mRNA expression in trophoblast cells from human placental villi was detected by RT PCR, and expression of CD81 and LDLR was also detected during different pregnancy stages by immunofluorescene method.ResultsCD 81 and LDLR were found in different placental villi and their expression has shown an increasing trend during different stages of gestation by immunofluorescene. ConclusionThe localization and expressions of HCV entry related receptor CD 81 and LDLR are found in cultured human trophoblast cells, which lay the foundation for further exploring the molecular mechanism of HCV infection transmission by CLEC4M.

Keywords: human trophoblastic cells hepatitis C virus CD81;low density lipoprotein receptor villi mother to child transmission

收稿日期 2012-03-06 修回日期 2012-05-22 网络版发布日期 2012-07-30

DOI:

基金项目:

国家自然科学基金资助项目（81170390, 30771891）

通讯作者: 聂青和

作者简介: 聂青和(1961-)，男(汉族)，江西省进贤县人,教授、主任医师，博士生导师,主要从事传染病学研究。

作者Email: nieqinghe@hotmail.com

参考文献：

［1］Kwo P Y, Vinayek R. The therapeutic approaches for hepatitis C virus: protease inhibitors and polymerase inhibitors ［J］.Gut Liver,2011,5(4):406-417.

［2］聂青和.加强病毒性肝炎的基础与临床研究［J］.胃肠病学和肝病学杂志，2007,16(1):95-99.

［3］Cocquerel L, Voisset C, Dubuisson J. Hepatitis C virus entry: potential receptors and their biological functions ［J］. J Gen Virol, 2006, 87: 1075-1084.

［4］Bergmann J F, De Knegt R J, Janssen H L. What is on the horizon for treatment of chronic hepatitis C ? ［J］.Minerva Med, 2008, 99(6): 569-582.

［5］Evans M J, von Hahn T, Tscherne D M, et al. Claudin　1 is a hepatitis C virus co　receptor required for a late step in entry［J］. Nature, 2007, 446(7137): 801-805.
［6］Soriano V, Peters M G, Zeuzem S. New therapies for hepatitis C virus infection［J］. Clin Infect Dis，2009,48(2):313-320.
［7］程勇前，聂青和，周永兴，等.人胎盘滋养层细胞的分离培养及IgGFcγRⅢ在滋养层细胞的表达［J］．医学研究生学报，2002, 15（2）：105-111.
［8］程勇前，聂青和，周永兴，等. 人滋养层细胞分离培养及HCV体外感染试验［J］．第四军医大学学报，2002, 23（17）：1544-1547.
［9］聂青和.丙型肝炎病毒母婴感染研究及其预防现状(述评）［J］.世界华人消化杂志，2005,13(11):1257-1262.
［10］Papadogiannakis N. Traffic of leukocytes through the maternofetal placental interface and its possible consequences［J］. Curr Top Microbiol Immunol, 1997,222（2）：141-157.
［11］Simpson R M, Hubbard B S, Zhao T M, et al. Experimental perinatal transmission of human immunodeficiency virus type 1 by passage of infected T cells［J］. J Infect Dis，1997,175(6): 1337-1343.
［12］Moussa M, Roques P, Fievet N, et al. Placental cytokine and chemokine production in HIV　1 infected women: trophoblast cells show a different pattern compared to cells from HIV　negative women［J］. Clin Exp Immunol，2001,125(3): 455-464.
［13］Phuapradit W, Panburana P, Jaovisidha A, et al. Maternal viral load and vertical transmission of HIV　1 in mid　trimester gestation［J］. AIDS, 1999,13(14): 1927-1931.
［14］Kilani R T, Chang L J, Garcia　Lloret M I, et al. Placental trophoblasts resist infection by multiple human immunodeficiency virus (HIV) type 1 variants even with cytomegalovirus coinfection but support HIV replication after provirus transfection［J］.J Virol, 1997,71(9): 6359-6372.
［15］Riley J K. Trophoblast immune receptors in maternal　fetal tolerance［J］. Immunol Invest, 2008,37(5): 395-426.

本刊中的类似文章

1．聂青和，张亚飞，程勇前，罗新栋，杨洁，杨艳红.HCV感染实验探讨人胎盘滋养层细胞分子生物性及侵袭力　FREE[J]. 中国感染控制杂志, 2010,9(2): 76-80
2．丁洋，白菡，盛秋菊，马力，窦晓光.乙型肝炎病毒感染人胎盘绒毛膜癌BeWo细胞体外培养模型的建立[J]. 中国感染控制杂志, 2012,11(1): 12-16