

Preparation of anti-NYD-SP8 rabbit polyclonal antibody and its application in the analysis of NYD-SP8 expression in nasopharyngeal carcinoma cell lines and clinical tissues

Ling-Lin Yang^{1,2*}, Jing-Bo Wu^{2*}, Zhi-Gang Liu¹, Li Liu¹, Mu-Sheng Zeng¹, Shan-Shan Yan¹, Hsiao-Chang Chan³, and Yun-Fei Xia¹

¹State Key Laboratory of Oncology in South China, Guangzhou, Guangdong; ²Affiliated Hospital of Luzhou Medical College, Luzhou, Sichuan; ³Epithelial Cell Biology Research Center, Li Ka Shing Institute of Health Sciences, Department of Physiology, Faculty of Medicine, The Chinese University of Hong Kong, Shatin, Hong Kong, China. *These authors contributed equally to this work.

ABSTRACT

Aims and background. NYD-SP8 is a recently identified protein, the biological characteristics of which are still unclear. The aim of this study was to prepare an anti-NYD-SP8 rabbit polyclonal antibody and investigate the expression of NYD-SP8 in human nasopharyngeal carcinoma cell lines and nasopharyngeal carcinoma tissues.

Methods. The anti-NYD-SP8 rabbit polyclonal antibody was prepared and ELISA was performed to assess the antibody titer. With this antibody, the NYD-SP8 expression in four nasopharyngeal carcinoma cell lines, CNE1, CNE2, 5-8F and 6-10B, was examined by Western blot and its expression in clinical tissues was also assessed by immunohistochemistry.

Results. The anti-NYD-SP8 rabbit polyclonal antibody with a high titer was successfully prepared. Western blot showed higher NYD-SP8 expression in CNE2 and 6-10B cells and lower expression in CNE1 and 5-8F cells. Immunohistochemistry demonstrated overexpression of NYD-SP8 in nasopharyngeal carcinoma tissue while the expression in normal nasopharyngeal tissue was negligible.

Conclusions. Our anti-NYD-SP8 rabbit polyclonal antibody can be used both for Western blot and immunohistochemistry, and can be a valuable tool to investigate the function and distribution of NYD-SP8. The different NYD-SP8 expression in various nasopharyngeal carcinoma cell lines indicated its complicated functions at different biological stages. The overexpression of NYD-SP8 in clinical nasopharyngeal carcinoma tissue indicated that it could play an important role in nasopharyngeal carcinoma carcinogenesis.

Key words: NYD-SP8, antibody preparation, nasopharyngeal carcinoma, uPAR.

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Conflict of interest statement: The authors declare that they have no conflicts of interest related to this work.

Correspondence to: Professor Yun-Fei Xia, State Key Laboratory of Oncology in South China, Guangzhou, Guangdong, 510060, PR China.
Tel +86-20-87343545;
fax +86-20-87343392;
e-mail xiayf@sysucc.org.cn

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