

论著

## A $\beta$ 1-15疫苗免疫接种成年恒河猴的体液免疫效应

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**摘要** 目的: 观察A $\beta$ 1-15疫苗免疫接种成年恒河猴的特异性体液免疫应答。方法: 5只雄性成年恒河猴分别在0、2、6、10、14、18、22周肌肉注射法接种A $\beta$ 1-15疫苗; ELISA法检测恒河猴血清抗A $\beta$ 1-42抗体及其IgG亚型的水平; Western blot法检测血清A $\beta$ 1-42抗体的特异性; 免疫组化方法观察抗血清与Tg2576转基因鼠脑A $\beta$ 斑的识别。结果: 疫苗接种后第8周, 恒河猴血清中出现明显的抗A $\beta$ 1-42抗体, 抗体滴度随接种次数的增加而升高, 第24周达1:3 840, 疫苗停止接种后抗体水平开始下降; 血清抗A $\beta$ 1-42IgG以IgG1为主; 血清A $\beta$ 1-42抗体具有高度特异性; 抗血清可识别结合Tg2576转基因鼠脑组织的A $\beta$ 斑。结论: A $\beta$ 1-15疫苗可有效诱导成年恒河猴产生特异性体液免疫应答。

**关键词** [阿尔茨海默病](#); [淀粉样肽](#); [疫苗](#); [恒河猴](#)

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## Specific humoral immune responses in adult rhesus monkeys vaccinated with A $\beta$ 1-15 peptide vaccine

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### Abstract

<FONT face=Verdana>AIM: To observe the humoral immune response in adult rhesus monkey induced by A $\beta$ 1-15 vaccine. METHODS: 5 adult male rhesus monkeys were injected intramuscularly with A $\beta$ 1-15 vaccine at baseline and at week 2, 6, 10, 14, 18, 22. The titer and IgG isotypes of the antibody against A $\beta$ 1-42 in the serum were measured with ELISA. The specificity of the antibody against A $\beta$ 1-42 was determined by Western blotting. The A $\beta$  plaques in Tg2576 transgenic mouse brain were stained with the antisera using immunohistochemistry method. RESULTS: At the eighth week after the vaccination, antibody against A $\beta$ 1-42 began to develop significantly in the serum. The titers of the antibody increased following vaccine boosted and reached 1:3 840 at the twenty-fourth week, then decreased after the termination of inoculation. The IgG1 was accounted for the highest level in the antisera pool. The antibody against A $\beta$ 1-42 showed high specificity. The A $\beta$  plaques in Tg2576 transgenic mouse brain were labeled with the antisera. CONCLUSION: A $\beta$ 1-15 vaccine could induce vigorously specific humoral immune responses in adult rhesus monkey.</FONT>

**Key words** [Alzheimer's disease](#) [Amyloid peptide](#) [Vaccine](#) [Macaca mulatta](#)

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