

Author:

Keyword:

[ADVANCED](#)Add to
Favorite / Citation
Articles AlertsAdd to
Favorite
PublicationsRegister
AlertsMy J-STAGE
HELP[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1880-313X

PRINT ISSN : 0388-6107

Biomedical Research

Vol. 27 (2006) , No. 4 August pp.191-195

[\[PDF \(1048K\)\]](#) [\[References\]](#)**Recombinant human growth hormone (SMP-140) is effective for growth promotion in hypophysectomized rats**Jun NAGAMINE¹⁾, Tsutomu NAKAGAWA¹⁾ and Mutsuo TAIJI¹⁾

1) Discovery Pharmacology Group I, Pharmacology Research Laboratories, Drug Research Division, Dainippon Sumitomo Pharma Co., Ltd.

(Received May 25, 2006)

(Accepted June 20, 2006)

ABSTRACT

Growth hormone (GH) replacement therapy has been shown to have beneficial effects on linear growth enhancement in GH-deficient children over the past few decades. SMP-140 is a sterile liquid formation containing rhGH that is expected to improve patient compliance and accuracy of dosing, compared with the commercially available lyophilized form of GH. However, since there are no data showing that SMP-140 influences body elongation in animal models, we studied the effects of SMP-140 on body length in hypophysectomized (HPX) rats, which are used as animal models of GH deficiency. Consistent with the main feature of GH-deficient children, the body length of HPX rats was significantly shorter than that of sham-operated rats at the start of the study. SMP-140 (0.2, 1 and 5 mg/kg) was administered once daily to HPX rats for seven days, and resulted in a dose-dependent increase in body length and in the width of the growth plate cartilage. These results show that SMP-140 administration increases body length in an animal model of GH deficiency, and suggest that SMP-140 will be a useful agent for the treatment of growth-retarded children.

[\[PDF \(1048K\)\]](#) [\[References\]](#)Download Meta of Article[\[Help\]](#)[RIS](#)[BibTeX](#)

To cite this article:

Jun NAGAMINE, Tsutomu NAKAGAWA and Mutsuo TAIJI; "Recombinant human growth hormone (SMP-140) is effective for growth promotion in hypophysectomized rats", *Biomedical Research*, Vol. **27**, pp.191-195 (2006) .

doi:10.2220/biomedres.27.191

JOI JST.JSTAGE/biomedres/27.191

Copyright (c) 2006 Biomedical Research Press



[Japan Science and Technology Information Aggregator, Electronic](#)

