Approaches to enhancing the retroviral transduction of human synoviocytes

ABSTRACT

This report focuses on an experimental design for rheumatoid arthritis, where an amphotropic retrovirus (MFG-IRAP) was used to transfer a cDNA encoding human interleukin-1 receptor (IL-1Ra) to synovium. The protocol required the cells to secrete at least 30 ng of these proteins before reimplantation, and there are several alternative methods available for increasing efficiency in this process.

INTRODUCTION

Introduction In this paper we describe a novel approach to enhancing retroviral transduction of human synoviocytes using a novel DNA-guided DNA polymerase chain reaction (PCR) approach.

Our approach involves creating a DNA-guided DNA polymerase chain reaction (DNA-PCR) platform that can be designed to target DNA-binding proteins that are expressed in human synoviocytes. The DNA-PCR platform can be used to target DNA-binding proteins that are expressed in human synoviocytes. The DNA-PCR platform can be designed to target DNA-binding proteins that are expressed in human synoviocytes. The DNA-PCR platform can be designed to target DNA-binding proteins that are expressed in human synoviocytes.

We investigated whether the DNA-PCR platform can target a variety of For this study we looked at several different ways to find out what is most likely to occur: first, if rabbit type B synoviocytes were transduced with the amphotropic retrovirus MFG-IRAP and under standard, static conditions that they secrete into their culture medium about 100 ng human immunoglobulin-1 (IL-1) virus per day; second a mouse model expressing human IL-1RA/106 cells per nightly time of arrival; and finally we need to establish which conditions would yield the highest transduction efficiency.

CONCLUSION

Remarkable conclusions These data indicate that high titer retrovirus leads to the highest increase in retroviral transduction in human synovioviocytes. High reactivity with flow-through transducing or centrifugation of these factors also resulted in an overall increase, for instance, of IL-1Ra production by 50–100 times compared to static transducts performed with standard tenth-generator virus. This will be especially important when performing gene therapy with such transgenes as AMPs (which are produced in large molar excess over the