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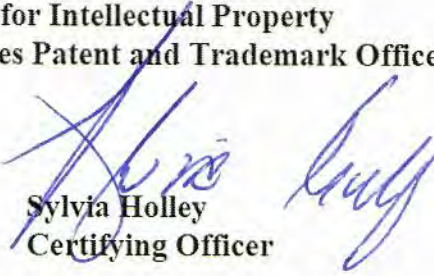
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(54) **CHIMERIC T CELL RECEPTORS**

**Publication Classification**

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(51) **Int. Cl.**<sup>7</sup> ..... **C12Q 1/68**; C07H 21/04;  
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(57) **ABSTRACT**

Chimeric T cell receptors (TCR) are provided that combine, in a single chimeric species, the intracellular domain of CD3 ζ-chain, a signaling region from a costimulatory protein such as CD28, and a binding element that specifically interacts with a selected target. When expressed, for example in T-lymphocytes from the individual to be treated for a condition associated with the selected target, a T cell immune response is stimulated in the individual to the target cells. The chimeric TCR's are able to provide both the activation and the co-stimulation signals from a single molecule to more effectively direct T-lymphocyte cytotoxicity against the selected target and T-lymphocyte proliferation.

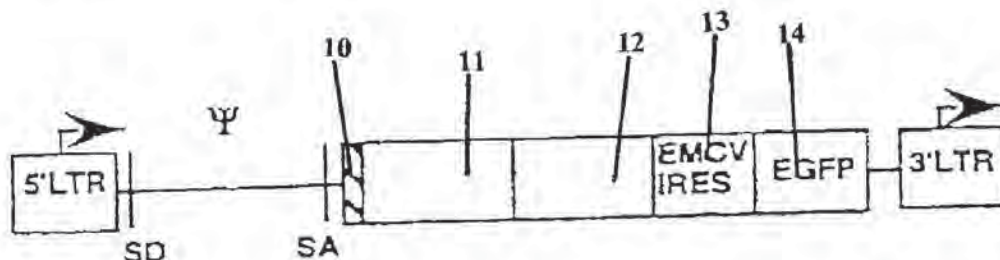
(73) Assignee: **Sloan Kettering Institute for Cancer Research**, New York, NY

(21) Appl. No.: **10/448,256**

(22) Filed: **May 28, 2003**

**Related U.S. Application Data**

(60) Provisional application No. 60/383,872, filed on May 28, 2002.



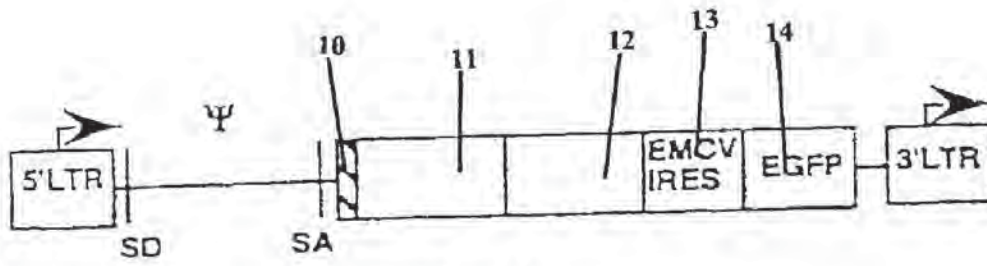


Fig. 1

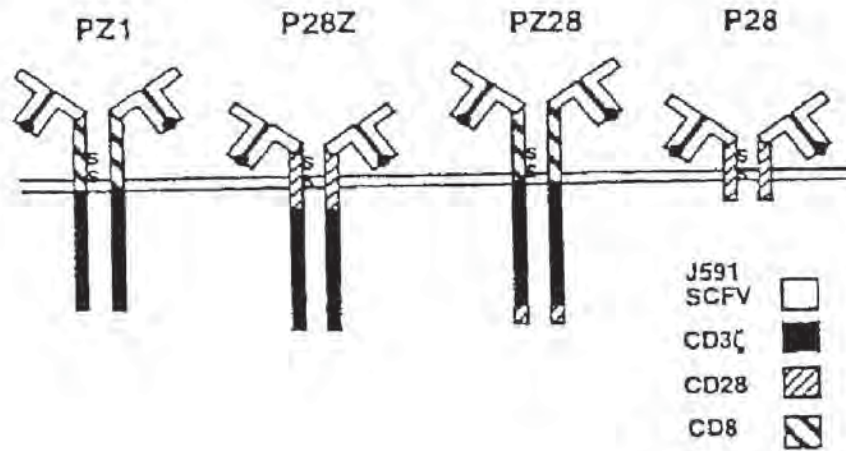


Fig. 2

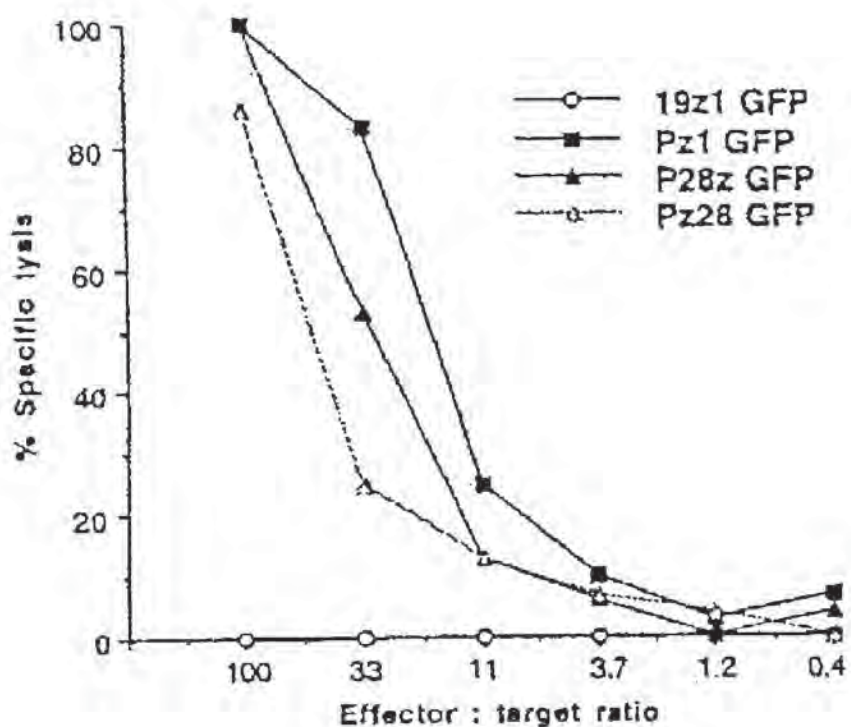


Fig. 3A

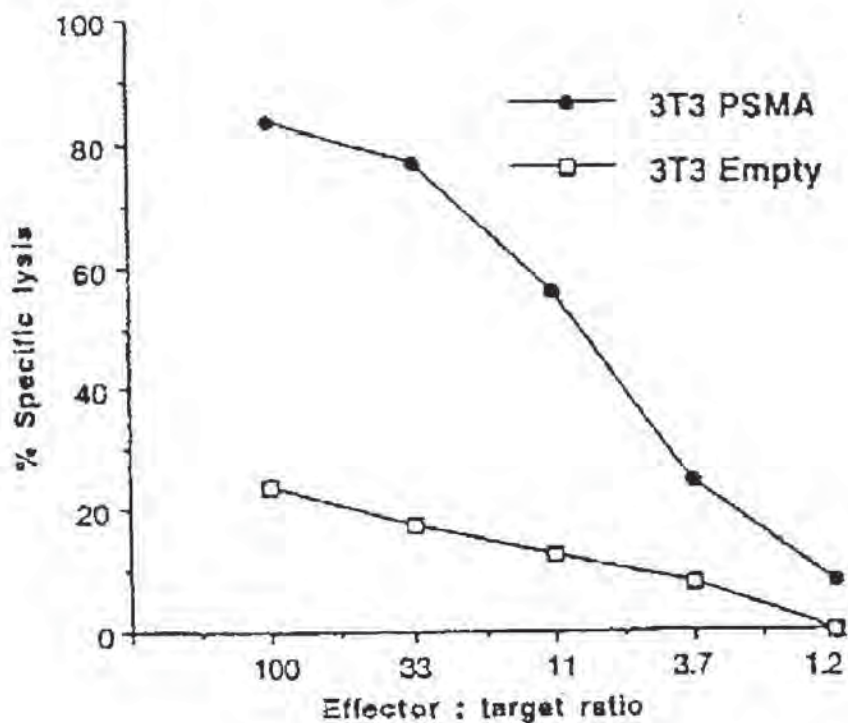


Fig. 3B

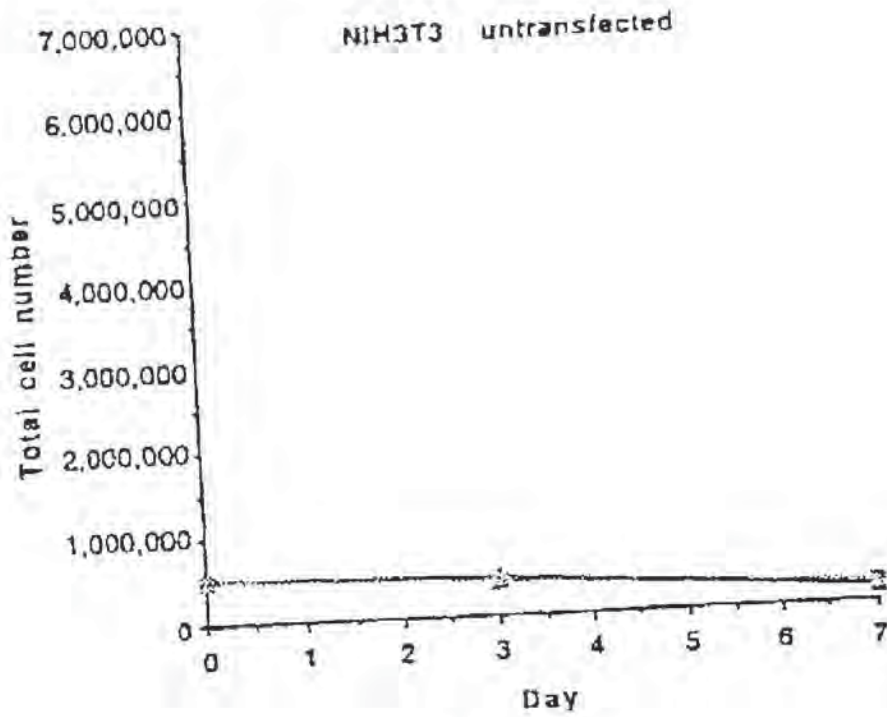


Fig. 4A

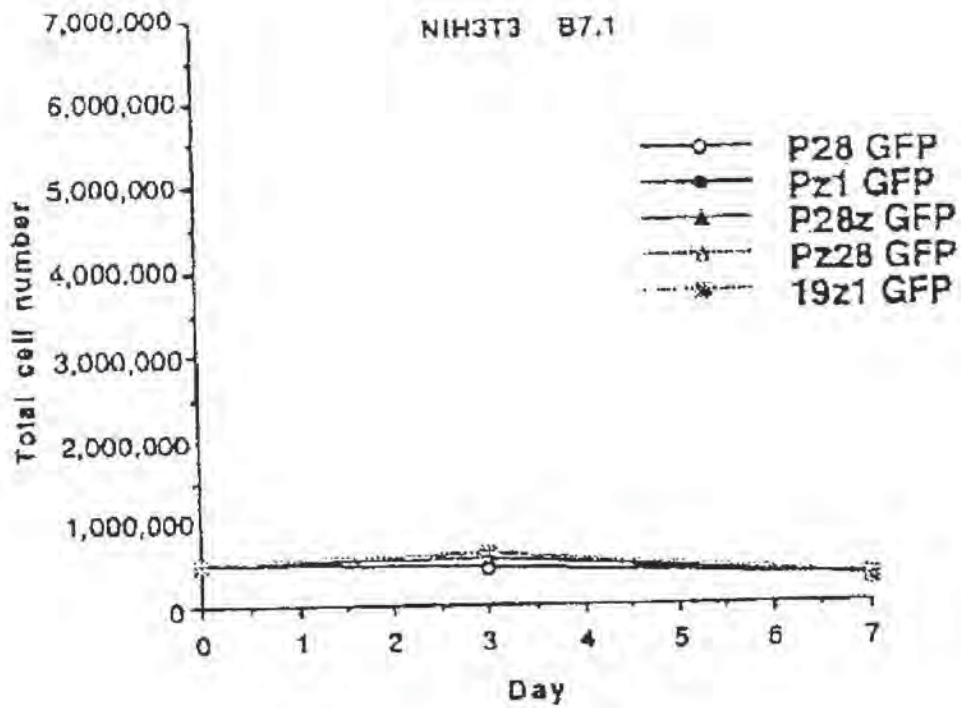


Fig. 4B

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