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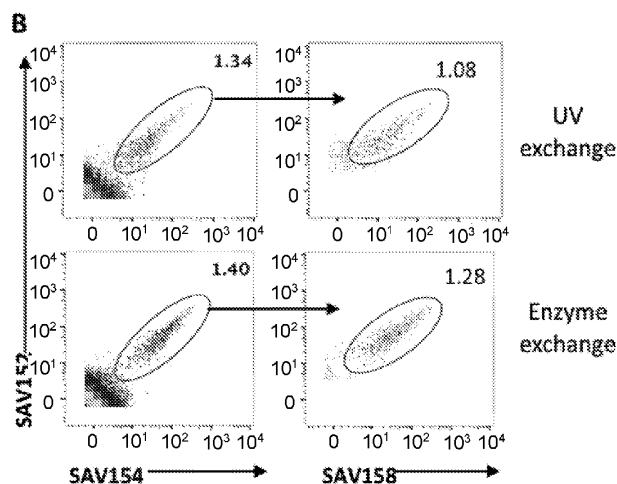
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(54) Title: HIGH YIELD PRODUCTION AND USE OF ENZYMATIC-EXCHANGEABLE PEPTIDE MAJOR HISTOCOMPATIBILITY COMPLEX CLASS I SINGLE CHAIN TRIMER TETRAMER

Figure 5

(57) Abstract: The present invention relates to methods to produce an enzymatic-exchangeable peptide Major Histocompatibility Complex Class I (MHC-I) Single Chain Trimer (SCT), or tetramer thereof, constructs encoding same and uses thereof, such as detection or isolation of antigen-specific CD8⁺ T cells. Said SCT comprises, in order from N-terminus to C-terminus, (i) a peptide ligand, (ii) a first linker polypeptide comprising an enzyme-cleavable portion, (iii) a β -2 microglobulin (β 2m) polypeptide, (iv) a second linker polypeptide, and (v) a mature MHC-I heavy chain polypeptide. In addition, a method of defining a peptide ligand suitable for successful production of a single fusion protein for peptide exchange is claimed.

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