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(54) Title: T-CELL RECEPTOR VARIANT AGAINST mKRAS₇₋₁₆ G12V

(57) Abstract: The present invention relates to a TCR polypeptide complex and/or a combination comprising a novel TCR characterized by its CDR sequences of the α chain variable region and the β chain variable region and by its antigenic specificity to (a) particular mutated KRAS epitope(s) or a fragment thereof presented in the context of a MHC class I molecule. The present invention further relates to a nucleic acid, a vector as well as a host cell comprising said nucleic acid or said vector. The present invention relates to a method for obtaining said TCR and said chimeric co-stimulatory receptor and to a pharmaceutical or diagnostic composition comprising the abovementioned. The present invention further relates to the abovementioned for use as a medicament or for use in a method of diagnosing, detecting, preventing, and/or treating cancer. Furthermore, the present invention relates to a method of detecting the presence of a cancer in a subject in vitro, by applying within said method the abovementioned, and the use of the abovementioned for generating modified lymphocytes and a kit.

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