DESCRIPTION

WT1-ANTIGEN~~WT1 ANTIGEN~~ PEPTIDE CONJUGATE VACCINE

TECHNICAL FIELD

[0001]

The present invention belongs to the field of cancer immunotherapy, and relates to a conjugate vaccine that can be subjected to trimming by peptidase ERAP1, is obtained by conjugating peptide precursors derived from WT1 antigen protein via a sulfur-sulfur covalent bond, and efficiently induces cytotoxic T cells.

BACKGROUND ART

[0002]

For eradication of cancer cells in the body, cellular immunity, particularly cytotoxic T cell (cytotoxic T-lymphocyte, Cytotoxic T-cell, hereinafter to be referred to as CTL) mainly plays an important role. CTL is produced by differentiation and proliferation of a precursor T cell that recognized a complex formed by an antigen peptide derived from a cancer antigen protein (cancer antigen peptide) and an MHC class I molecule, and attacks cancer cells.

[0003]

A cancer suppressor gene of Wilms tumor, WT1 (WT1 gene) is considered a new cancer antigen protein for leukemia and solid tumor (see non-patent document 1).

[0004]

As for WT1 protein, for example, the following cancer antigen peptides that are bound to and presented by MHC class I have been reported (see patent documents 1, 2).

$WT1_{126-134}$ peptide: RMFPNAPYL (Arg-Met-Phe-Pro-Asn-Ala-Pro-Tyr-Leu) (SEQ ID NO: 2),

$WT1_{235-243}$ peptide: CMTWNQMNL (Cys-Met-Thr-Trp-Asn-Gln-Met-Asn-Leu)