

Description

The MAGE-A4 Peptide (286-294, KVLEHVVRV) is a peptide corresponding to MAGE-A4 (Melanoma-associated antigen 4), amino acids 286-294. The MAGE-A4 peptide is widely used to stimulate human MAGE-A4-specific CD8⁺ T cells or as negative control in the stimulation of human MAGE-A1-specific CD8⁺ T cells.

Background

MAGE (melanoma associated antigen) proteins are CT (cancer testis) antigens, and there are about 60 proteins in the MAGE family that can be subdivided into type I (present only on the X-chromosome, MAGE-A, B, and C) and type II (MAGE D-L and necdin). Under normal conditions they are mostly found in the testis and placenta. They are found at high levels in several cancer types, such as melanoma, brain, and breast cancer, and are involved in the development of resistance to chemotherapy, cell motility, and cell survival. Expression of MAGE proteins tend to correlate with a poor prognosis. They are intracellular proteins, with MAGE-A4 being found in the cytosol and nucleus, making them poor targets for strategies such as CAR-T cell therapy. MAGE proteins are degraded in the proteasome, and the peptides created can then be found on the cell membrane in combination with MHC (major histocompatibility complex) I. The presentation on the cell surface in this form makes them an attractive target for TCR (T cell receptor)-T cell therapy. Several clinical trials are ongoing, and either alone or in combination with other forms of cancer therapy the use of TCR-T cells targeting MAGE-A antigens may become a promising therapeutic avenue.

Sequence

KVLEHVVRV

Species

Human

Supplied As

Liquid, 100 µl

Formulation

1 mM peptide in DMSO

Stability

At least one year at -80°C.

Storage

Upon first thaw, aliquot and store at -80°C. Avoid repeated freeze-thaw cycles.

Application

Stimulation of human MAGE-A4-specific CD8⁺ T cells.

Related Products

<i>Products</i>	<i>Catalog #</i>	<i>Size</i>
MAGE-A1 Peptide (278-286)	78965	100 µl
MAGE-A4 Peptide (230-239)	78966	100 µl
MAGE-A1 TCR Lentivirus	78934	100 µl
MAGE-A4 TCR CD8 ⁺ NAFT-Luciferase Reporter Jurkat Cell Line	78984	2 Vials
MAGE-A1 TCR CD8 ⁺ NAFT-Luciferase Reporter Jurkat Cell Line	78993	2 Vials

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