

## HPV16 E7 (86-93)

<b>Cat. No.:</b>	HY-P1778
<b>CAS No.:</b>	160212-93-1
<b>Molecular Formula:</b>	C <sub>37</sub> H <sub>66</sub> N <sub>8</sub> O <sub>10</sub> S
<b>Molecular Weight:</b>	815.03
<b>Sequence:</b>	Thr-Leu-Gly-Ile-Val-Cys-Pro-Ile
<b>Sequence Shortening:</b>	TLGIVCPI
<b>Target:</b>	HPV
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	HPV16 E7 (86-93) is a human leukocyte antigen (HLA)-A2.1 restricted HPV16 E7-derived peptide. HPV16 E7 (86-93) is immunogenic in cervical carcinomas <sup>[1][2]</sup> .
<b>In Vitro</b>	<p>HPV16 E7 (86-93) specific T cells are expandable upon IVS (in vitro stimulation) with cognate peptide-pulsed dendritic cells (DCs) and are reactive against peptide-pulsed targets or, in case of the E711-20 epitope-specific T cells, against HPV16 E7 expressing CaSki cell line<sup>[1]</sup>.</p> <p>For peptide HPV16 E7 (86-93), the only response against K562 cells pulsed with the corresponding peptide was significantly blocked by anti-HLA class I Ab w6/32, which was not the case for HPV16 E7 expressing tumor cell line CaSki. Precursor T cells specific for HPV16 E7 (86-93) peptide is able to differentiate, at least in vitro, into HPVspecific effector cells<sup>[1]</sup>.</p> <p>HPV16 E7 peptide-loaded autologous dendritic cells (DCs) are able to stimulate a specific cytotoxic CD8+ T-cell response<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	<p>HPV16 E7 (86-93) peptide in IVS culture has specific T cell expansion. The HPV16 E7 (86-93) specific T cells produced does not recognize naturally HPV16 E7 expressing cell line CaSki. HPV16 E7 (86-93) peptides also has similar observations in transgenic mice. The HPV16 E7 (86-93) peptide is able to induce cytotoxic T lymphocyte (CTL) responses if loaded on the antigen presenting HLA class I molecules, but that the peptide appears not to be processed or presented by HPV16 infected cells<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

[1]. Cheng WF, et al. Induction of human papillomavirus type 16-specific immunologic responses in a normal and an human papillomavirus-infected populations. Immunology. 2005 May;115(1):136-49.

[2]. Hoffmann TK, et al. T cells specific for HPV16 E7 epitopes in patients with squamous cell carcinoma of the oropharynx. Int J Cancer. 2006 Apr 15;118(8):1984-91.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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