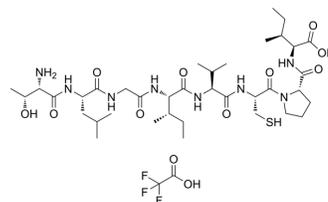


HPV16 E7 (86-93) (TFA)

Cat. No.:	HY-P1778A
Molecular Formula:	C ₃₉ H ₆₇ F ₃ N ₈ O ₁₂ S
Molecular Weight:	929.06
Sequence:	Thr-Leu-Gly-Ile-Val-Cys-Pro-Ile
Sequence Shortening:	TLGIVCPI
Target:	HPV
Pathway:	Anti-infection
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (107.64 mM; Need ultrasonic)
 H₂O : 6.67 mg/mL (7.18 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.0764 mL	5.3818 mL	10.7636 mL
	5 mM	0.2153 mL	1.0764 mL	2.1527 mL
	10 mM	0.1076 mL	0.5382 mL	1.0764 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (2.69 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (2.69 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (2.69 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HPV16 E7 (86-93) TFA is a human leukocyte antigen (HLA)-A2.1 restricted HPV16 E7-derived peptide. HPV16 E7 (86-93) TFA is immunogenic in cervical carcinomas^{[1][2]}.

In Vitro

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

	<p>expressing CaSki cell line^[1]. 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^[1]. HPV16 E7 peptide-loaded autologous dendritic cells (DCs) are able to stimulate a specific cytotoxic CD8+ T-cell response^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<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^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. 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.
- [2]. 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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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