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MHC-I and MHC-II epitope peptides – OVA (257 - 264)

Product	Cat#	Package size
OVA (257 - 264) (>95% - HPLC 214nm)	P2275.9501	1mg
OVA (257 - 264) (>95% - HPLC 214nm)	P2275.9505	5mg

Description:

MHC-I glycoproteins are designed for the recognition of infected cells and tumor cells.
T cell epitopes are presented on the surface of antigen-presenting cells by MHC molecules. T cell epitopes presented by MHC class I molecules are typically peptides between 8 and 11 amino acids in length and exhibiting MHC-specific sequence motifs.

These antigenic peptides are derived from non-structural and structural proteins through proteolysis in the cytosolic compartment. Peptide-MHC-I complexes are then transported to the cell surface of antigen presenting cells and are recognized by CD8+ cytotoxic T lymphocytes (CTL). This interaction induces the differentiation of CTLs. Activated CTL lyse the infected cell, secrete cytokines, and proliferate.

This mechanism ensures that cells infected by viruses or intracellular bacteria, or cancer cells can be detected, since pathogen or cancer-specific MHC peptide complexes are displayed on the cell surface. CTL can recognize such abnormal cells and eliminate them.

The genes of MHC I and II molecules are polymorphic. Each MHC allele has a distinct peptide binding motif which favors certain amino acid anchor residues at defined sequence positions.

Sequence: SIINFEKL
Ser-Ile-Ile-Asn-Phe-Glu-Lys-leu

MW / Formula 963.3 g/mol / C45H74N10O13

Reconstitution
The peptide amide is provided as a lyophilized, colourless powder without any additives. It can be shipped at ambient temperature and should be stored at -20°C.
Ova (257-264) can be reconstituted in water (1mg/mL stock solution). Through the use of a vortex mixer, homogenizer or sonicator, a homogenous solution can be prepared. If you use an ultrasonic bath, take care of the vial labels. After reconstitution, the solution should be aliquoted and stored at or below -20°C.
Repeated thawing and freezing should be avoided.

Handling
Caution, not fully tested. Good laboratory technique should be employed in the safe handling of any lipopeptide product. If you are not fully trained or are unaware of the hazards involved, do not use this compound!
Caution: Do not take internally! Avoid contact by all modes of exposure. Wear appropriate laboratory attire including a lab coat, gloves, mask and safety glasses. Do not mouth pipette, inhale, ingest or allow to come into contact with open wounds. Wash thoroughly any area of the body which comes into contact with the product. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.

This product is intended for research purposes by qualified personnel only. It is not intended for use in humans or as a diagnostic agent. Genaxxon bioscience GmbH is not liable for any damages resulting from misuse or handling of this product.

References:
R. Vita, L. Zarebski, J. A. Greenbaum, H. Emami, I. Hoof, N. Salimi, R. Damle, A. Sette, B. Peters (2010) Nucleic Acids Res. Jan. 38 D854-62. Epub 2009 Nov. 11 (www.immuneepitope.org).
H.-G. Rammensee, J. Bachmann, N.N. Emmerich, O.A. Bachor, S. Stevanović (1999) Immunogenetics 50, 213-219 (www.syfpeithi.de).
H.-G. Rammensee, T. Friede, S. Stevanović (1995) Immunogenetics 41, 178-228.
K. Falk, O. Rötzschke, S. Stevanović, G. Jung, H.-G. Rammensee (1991) Nature 351, 290 – 296. doi:10.1038/351290a0

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Related Products

Cat #	Description
P2275	Ova (257-264) - SIINFEKL - available with a guaranteed purity of >70% or >95%.
P2276	Influenza A NP (366-374) - ASNENMETM - available with a guaranteed purity of >70% or >95%.
P2277	Influenza A matrix protein (58-66) - GILGFVFTL - available with a guaranteed purity of >70% or >95%.
P2278	HIV-1 p17 Gag (77-85) - SLYNTVATL - available with a guaranteed purity of >70% or >95%.
P2279	HCV-NS5b - ALYDVVSKL - available with a guaranteed purity of >70% or >95%.
P2280	LCMV GP (33-41) - KAVYNFATM - available with a guaranteed purity of >70% or >95%.
P2281	Melan-A / MART-1 (26-35) - EAAGIGILTV - available with a guaranteed purity of >70% or >95%.
P2282	MAGE-3 antigen (271-279) - FLWGPRALV - available with a guaranteed purity of >70% or >95%.
P2283	Ova (323-339) ISQAVHAAHAEINEAGR - available with a guaranteed purity of >70% or >95%.
P2284	PADRE - Peptid AKFVAAWTLKAAA - available with a guaranteed purity of >70% or >95%.
P2285	EBV EBNA-3A peptide RPPIFIRRL (HLA-B*0702) - available with a guaranteed purity of >70% or >95%.
P2295	EBV BMLF-1 Peptid GLCTLVAML (HLA-A*0201) - available with a guaranteed purity of >70% or >95%.
P2296	CMV pp65 Peptid NLVPMVATV (HLA-A*0201) - available with a guaranteed purity of >95%.
P2301	EBNA-1 Protein (562-570) - FMVFLQTHI - available with a guaranteed purity of >95%.

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