

Certificate of Analysis

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Product Name: Ovalbumin peptide (257-264)

Catalog No.: 7790

Batch No.: 1

CAS Number: 138831-86-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₅H₇₄N₁₀O₁₃
Batch Molecular Weight: 963.13
Physical Appearance: White lyophilised solid
Counter Ion: Trifluoroacetate
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ser-Ile-Ile-Asn-Phe-Glu-Lys-Leu

2. ANALYTICAL DATA

HPLC: Shows 97.1% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys	1.00	1.03	
Arg				Met			
Asx	1.00	1.04	Phe	1.00	1.03		
Cys			Pro				
Glx	1.00	1.04	Ser	1.00	0.58		
Gly			Thr				
His			Trp				
Ile	2.00	1.83	Tyr				
Leu	1.00	1.03	Val				

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com
 info@bio-techne.com
 techsupport@bio-techne.com

North America
 Tel: (800) 343 7475

China
 info.cn@bio-techne.com
 Tel: +86 (21) 52380373

Europe Middle East Africa
 Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
 Tel:+1 612 379 2956

Product Name: Ovalbumin peptide (257-264)**Catalog No.:** 7790**Batch No.:** 1

CAS Number: 138831-86-4

Description:

Ovalbumin peptide (257-264) is an immunogenic glycoprotein used as model antigen for immunization and vaccination research and to investigate antigen presentation and T cell activation. This peptide plays a critical role in cancer studies, serving as a key agent to evaluate macrophage antigen presentation and to drive robust CD8+ T cell proliferation. Used in multiple cancer models, including oral squamous cell carcinoma, breast cancer, glioblastoma, triple-negative breast cancer, esophageal squamous cell carcinoma, and B-cell malignancies. Used for investigation into immune response dynamics, cytotoxic T cell activity, tumor microenvironment... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:Batch Molecular Formula: C₄₅H₇₄N₁₀O₁₃

Batch Molecular Weight: 963.13

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ser-Ile-Ile-Asn-Phe-Glu-Lys-Leu

Storage: Store at -20°C**Solubility & Usage Info:**

Soluble to 1 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Counter Ion: Trifluoroacetate**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

References:

Li *et al* (2023) Histone demethylase KDM5D upregulation drives sex differences in colon cancer. *Nature* **619** 632. PMID: 37344599.

Booty *et al* (2022) Microfluidic squeezing enables MHC class I antigen presentation by diverse immune cells to elicit CD8+ T cell responses with antitumor activity. *J.Immunol.* **208** 929. PMID: 35091434.

Jaeger *et al* (2022) Deciphering the immunopeptidome in vivo reveals new tumour antigens. *Nature* **607** 149. PMID: 35705813.

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