

OVA

Chicken egg albumin

Catalog code: vac-stova

<https://www.invivogen.com/ovalbumin>

For research use only

Version 23L04-NJ

PRODUCT INFORMATION

Contents

- 1 g OVA protein, provided as a dried powder.

Storage and stability

- OVA is shipped at room temperature. Upon receipt, store at 4°C.
- Upon resuspension, prepare aliquots of OVA and store at -20°C. Resuspended product is stable for 6 months when properly stored. Avoid repeated freeze-thaw cycles.

Quality Control

- Purity: ≥ 95% (agarose gel electrophoresis)
- The functionality of OVA was assessed by enzyme-linked immunosorbent assay (ELISA).
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION

OVA (also known as ovalbumin or albumin) is a key reference protein for immunization. It is the most abundant protein in chicken egg whites. OVA is a glycoprotein that is sufficiently large and complex to be mildly immunogenic. Consequently, it is widely used as an antigen for immunization experiments¹⁻³. Furthermore, OVA can be used as a carrier protein for conjugation to haptens⁴ and other antigens to make them more immunogenic. For accurate and reliable experimental results, the quality of OVA is crucial. However, commercially available OVA is often contaminated with endotoxins which alter the results obtained *in vivo*⁵. InvivoGen also offers EndoFit™ OVA, for which endotoxin levels are <1 EU/mg and sterility is guaranteed.

1. Lipford G.B. et al., 1993. Primary *in vivo* responses to ovalbumin. Probing the predictive value of the Kb binding motif. *J Immunol.* 150(4):1212-1222. **2. Newman M.J et al., 1992.** Saponin adjuvant induction of ovalbumin-specific CD8+ cytotoxic T lymphocyte responses. *J Immunol.* 148(8):2357-2362. **3. Vaz E.M. et al., 1971.** Persistent formation of reagins in mice injected with low doses of ovalbumin. *Immunology.* 21(1):11-15. **4. Slütter B. et al., 2010.** Conjugation of ovalbumin to N-trimethyl chitosan improves immunogenicity of the antigen. *Journal of Controlled Release* 143(2):207-14. **5. Watanabe J. et al., 2003.** Endotoxin contamination of ovalbumin suppresses murine immunologic responses and development of airway hyperreactivity. *J Biol Chem.* 278(43):42361-8.

CHEMICAL PROPERTIES

CAS number: 9006-59-1

Molecular weight: ~ 45 kDa

Solubility: 40 mg/ml in water

METHODS

Preparation of stock solution (10 mg/ml)

1. Weigh 10 mg of OVA.
2. Add 1 ml of **room-temperature** water to 10 mg of OVA to obtain a solution at 10 mg/ml.
3. Mix the solution by pipetting up and down. The solution may appear slightly hazy. Further dilutions can be made with water or phosphate buffered saline (PBS).

Note: Allow water or PBS to reach room temperature before use.

APPLICATIONS

OVA protein can be used for ELISA at a working concentration of 10-50 µg/ml in PBS (pH 7.4).

Other applications have not been tested.

RELATED PRODUCTS

Product	Description	Cat.Code
OVA Antigens		
EndoFit™ OVA	OVA protein for <i>in vivo</i> use	vac-pova
OVA 257-264	OVA peptide	vac-sin
OVA 323-339	OVA peptide	vac-isq
Alum and Emulsions		
AddaVax™	Squalene-Oil-in-water	vac-adx-10
Alhydrogel® adjuvant 2%	Aluminium hydroxide gel	vac-alu-250
CFA	Complete Freund's adjuvant	vac-cfa-10
PRR Ligands		
2'3'-cGAMP VacciGrade™	STING agonist	vac-nacda2r
Flagellin FlIC VacciGrade™	TLR5 agonist	vac-fla
MPLA-SM VacciGrade™	TLR4 agonist	vac-mpla
Pam3CSK4 VacciGrade™	TLR2 agonist	vac-pms
Poly(I:C) VacciGrade™	TLR3 agonist	vac-pic
R848 VacciGrade™	TLR7/8 agonist	vac-r848

TECHNICAL SUPPORT

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