

# EndoFit™ Ovalbumin

Chicken egg albumin; for *in vivo* use

Catalog # vac-pova, vac-pova-100  
<http://www.invivogen.com/endo-fit-ovalbumin>

**For research use only. Not for use in humans.**

Version # 17E10-MM

## PRODUCT INFORMATION

### Contents:

- EndoFit™ ovalbumin is provided lyophilized and is available in 2 quantities:
  - 10 mg sterile EndoFit™ ovalbumin: vac-pova
  - 4 x 25 mg sterile EndoFit™ ovalbumin: vac-pova-100

EndoFit™ ovalbumin does not contain salts.

- sterile endotoxin-free physiological water (NaCl 0.9%); 10 ml with #vac-pova and 2 x 10 ml with #vac-pova-100

### Storage and stability

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

### Notes:

- It is recommended to quick-freeze diluted ovalbumin.
- During storage or resuspension, fibrous aggregates of ovalbumin can occur. These do not impact product quality and usually represent a small fraction of total product (i.e. less than 5%).

### Quality control

- 98% purity minimum (SDS-PAGE)
- EndoFit™ ovalbumin is prepared under strict aseptic conditions. It is tested for sterility and the presence of endotoxins. EndoFit™ ovalbumin is guaranteed sterile and its endotoxin level is <1 EU/mg (measurement by kinetic chromogenic LAL assay).
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

## DESCRIPTION

Ovalbumin (also known as albumin or OVA) is a key reference protein for immunization. Ovalbumin is the most abundant protein in chicken egg whites. Ovalbumin is a glycoprotein that is sufficiently large and complex to be mildly immunogenic. Consequently, ovalbumin is widely used as an antigen for immunization experiments<sup>1-3</sup>. Furthermore, ovalbumin can be used as a carrier protein for conjugation to haptens<sup>4</sup> and other antigens to make them more immunogenic. For accurate and reliable experimental results, the quality of ovalbumin is crucial. However, commercially available ovalbumin is often contaminated with endotoxins which alter the results obtained *in vivo*<sup>5</sup>. EndoFit™ ovalbumin has endotoxin levels <1 EU/mg and is guaranteed sterile.

**1. Lipford GB. 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 MJ et al., 1992.** Saponin adjuvant induction of ovalbumin-specific CD8+ cytotoxic T lymphocyte responses. *J Immunol.* 148(8):2357-2362. **3. Vaz EM. 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.

### TECHNICAL SUPPORT

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## CHEMICAL PROPERTIES

**CAS number:** 9006-59-1

**Molecular weight:** ~ 45 kDa

**Solubility:** 20 mg/ml in water

**Appearance:** White powder

## METHODS

### Preparation of stock solution (10 mg/ml)

- Allow sterile endotoxin-free physiological water to reach room temperature before use.
  - Resuspend EndoFit™ ovalbumin with sterile endotoxin-free physiological water (provided).
    - Add 1 ml to 10 mg vial of EndoFit™ ovalbumin
    - Add 2.5 ml to 25 mg vial of EndoFit™ ovalbumin.
  - Mix the solution by pipetting up and down. The solution may appear slightly hazy or contain fibrous aggregates.
- Note: This does not impact product quality.*
- Filter the stock solution of EndoFit™ ovalbumin using a sterile 0.2 µm (pore size) filter to remove insoluble material.
  - Further dilutions can be made with sterile saline water.

## APPLICATION

EndoFit™ ovalbumin is designed for immunization of laboratory animals.

## RELATED PRODUCTS

Product	Cat. Code
<b>Alum and Emulsions</b>	
AddaVax™ (Squalene-Oil-in-water)	vac-adx-10
Alhydrogel 2% adjuvant (Al(OH) <sub>3</sub> gel)	vac-alu-250
CFA (Complete Freund's adjuvant)	vac-cfa-10
IFA (Incomplete Freund's adjuvant)	vac-ifa-10
Quil-A® adjuvant (Saponin adjuvant)	vac-quil
<b>PRR Ligands</b>	
c-di-GMP VacciGrade™ (STING agonist)	vac-nacdg
2'3'-cGAMP VacciGrade™ (STING agonist)	vac-nacga23
Flagellin FliC VacciGrade™ (TLR5 agonist)	vac-fla
Gardiquimod VacciGrade™ (TLR7 agonist)	vac-gdq
MPLA VacciGrade™ (TLR4 agonist)	vac-mpla
ODN 1826 VacciGrade™ (murine TLR9 agonist)	vac-1826-1
Poly(I:C) VacciGrade™ (TLR3 agonist)	vac-pic
R848 VacciGrade™ (TLR7/8 agonist)	vac-r848
<b>OVA Antigens</b>	
Ovalbumin (For detection; Western, ELISA)	vac-stova
Ova 257-264 (For detection; ELISPOT)	vac-sin
Ova 323-339 (For detection; ELISPOT)	vac-isq