

EndoGrade[®] Ovalbumin

Endotoxin-free Ovalbumin

Avoiding endotoxin artefacts and facilitating undisturbed and advanced allergology research and immunization experiments



Introduction

Ovalbumin is one of the most extensively studied proteins in animal models and also an established model allergen for airway hyper-responsiveness (AHR). Ovalbumin is a glycoprotein and the main constituent in chicken egg white.

Commercially available ovalbumin is commonly contaminated with endotoxins (lipopolysaccharides/LPS) and can fully activate endothelial cells in an in-vitro assay of the first step of inflammation. LPS is a potent and pleiotropic inflammatory agent. Therefore, LPS contaminations falsify research results in allergology research and immunization experiments. For this reason the threshold level of pharmaceuticals for intravenous administration was set to 5 EU/kg bodyweight.

To meet the exact requirements of *in vivo* (e.g. injection, aerosolization) and *in vitro* (e.g. proliferation assays) studies based on ovalbumin, Hyglos provides EndoGrade[®] Ovalbumin at superior quality.

Specifications of EndoGrade[®] Ovalbumin

Source	Chicken Egg White
Synonyms	Plakalbumin, Allergen Gal d 2, Gal d II
Preparation	Prepared by ion exchange from egg white
Purity (SDS-Page)	> 98%
Endotoxin level	EndoGrade [®] Ovalbumin 10 mg (Cat. No. 321000): < 0.1 EU/mg EndoGrade [®] Ovalbumin 100 mg (Cat. No. 321001): < 1 EU/mg EndoGrade [®] Ovalbumin 1000 mg (Cat. No. 321002): < 1 EU/mg EndoGrade [®] Ovalbumin Bulk (Cat. No. 321003): < 1 EU/mg [measured at an Ovalbumin conc. of 1 mg/ml] 1 EU~0.1 ng LPS
Microbiological contamination	Has been tested according to the Quality Control Plan.
Molecular weight	~45 kDa
Extinction coefficient	0.7 ml mg ⁻¹ cm ⁻¹
Max. solubility	20 mg/ml
CAS number	9006-59-1
Form	Lyophilized, contains no salts
Storage	Store at 2-8 °C (lyophilized) or -20 °C (reconstituted in buffer)
Shelf life	Lyophilized EndoGrade [®] Ovalbumin is stable until stated expiry date when stored according to instructions (2-8 °C). Reconstituted EndoGrade [®] Ovalbumin is stable 6 months when stored at -20 °C.

Precautions and Disclaimer

- **For laboratory & research use only. Not for drug, household or other uses.**
- Prepare buffer (e.g. H₂O, PBS) from endotoxin-free water and endotoxin-free materials.
- All materials used, such as containers, pipette tips and buffers, must be endotoxin-free. Glass ware is preferred, as endotoxins can be destroyed by heat treatment (200 °C, 4 h or 250 °C, 1 h). Plastic materials should be inserted in at least 1 M NaOH overnight (6 - 12 h), subsequently washed with endotoxin-free water and air dried. Endotoxin-free EndoGrade[®] Water and EndoGrade[®] Glass Test Tubes are supplied by Hyglos.
- **The EndoGrade[®] vials are sealed under vacuum; please open the plug slowly to avoid dispersion by air-flow.**
- Please solve ovalbumin using endotoxin-free buffer and endotoxin-free pipette tips. Avoid contact with the plug. Transfer the solved ovalbumin in a new endotoxin-free container; be careful when opening the container to avoid any cross-contamination.
- Mix very gently to solve the ovalbumin and avoid bubbles. Solved ovalbumin should be used immediately for the desired application. It is recommended to quick-freeze diluted ovalbumin for storing (-20 °C) and use within 6 months.
- During storage, fibrous aggregates can occur in the ovalbumin solution. These do not influence the product quality. They can be removed by centrifugation or filtration (0.2 µm sterile filter).

Examples for Dilution/Reconstitution

Regarding your desired application (e.g. injection, aerosolization or proliferation assay) please dilute the lyophilized ovalbumin with the corresponding buffer volume.

mg Ovalbumin	Add x ml buffer	To receive
2.5 mg	2.5 ml	50 µg / 50 µl
2.5 mg	5 ml	50 µg / 100 µl
2.5 mg	10 ml	25 µg / 100 µl
25 mg	2.5 ml	1% solution
25 mg	5 ml	0.5% solution
1 g	100 ml	1% solution

Package Content (Article no. 321000, 321001, 321002, 321003)

EndoGrade® Ovalbumin, lyophilized, contains no salts

Storage

Store at 2-8 °C (lyophilized) or -20 °C (reconstituted in buffer).

Inquiries and Technical Support

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Endotoxin-free Portfolio Enlargement

Do you have suggestions for any LPS-free products (e.g. further allergens, proteins) which should be include in Hyglos' EndoGrade® related product portfolio?

Please send your suggestions to: inquiry@hyglos.de

Legal statements

EndoGrade®, EndoLISA® and EndoZyme® are registered trademarks of Hyglos Invest GmbH.

Related Products by Hyglos

EndoGrade® Endotoxin-free Accessories

- **EndoGrade® Glass Test Tubes** - Endotoxin-free borosilicate glass test tubes with screw cap
- **EndoGrade® Water** - Ultra-pure water for endotoxin-free reconstitution and dilution of reagents

EndoLISA® Endotoxin Detection Assay

- **EndoLISA®** ELISA-based endotoxin detection suited for complex sample matrices

EndoZyme® Endotoxin Detection Assay

- **EndoZyme®** Recombinant Factor C (rFC) Endotoxin Detection Assay

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