

Ovalbumin (3G2E1D9): sc-65984

BACKGROUND

Ovalbumin is a member of the serpin superfamily of proteins, although unlike most of the serpins, it is unable to inhibit any proteases. Ovalbumin is the main protein present in egg white, and it may function as a storage protein. It is a secreted glycoprotein of 385 amino acids. Ovalbumin is able to chelate to heavy metals and trap the metal ions within the matrix of the protein, so it is commonly administered in cases where poisoning by heavy metals is suspected. It is also useful in many research settings such as proteomics, where it is commonly used as a molecular weight marker for calibrating electrophoresis gels, or in immunology to stimulate an allergic reaction in test subjects. Because it is available in large quantities, Ovalbumin is advantageous in general studies of protein structure and properties.

REFERENCES

- Mine, Y. and Rupa, P. 2003. Fine mapping and structural analysis of immunodominant IgE allergenic epitopes in chicken egg Ovalbumin. *Protein Eng.* 16: 747-752.
- Ferrer-Martinez, A., et al. 2004. Chicken Ovalbumin upstream promoter-transcription factor I represses the transcriptional activity of the human muscle glycogen phosphorylase promoter in C2C12 cells. *Biochim. Biophys. Acta* 1678: 157-162.
- Funabashi, H., et al. 2004. Effects of repeated ozone exposure on pulmonary function and bronchial responsiveness in mice sensitized with Ovalbumin. *Toxicology* 204: 75-83.
- Pinto, L.A., et al. 2004. Infection of BALB/c mice with *Angiostrongylus costaricensis* decreases pulmonary inflammatory response to Ovalbumin. *Parasite Immunol.* 26: 151-155.

SOURCE

Ovalbumin (3G2E1D9) is a mouse monoclonal antibody raised against Ovalbumin of chicken origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ovalbumin (3G2E1D9) is available conjugated to agarose (sc-65984 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65984 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65984 PE), fluorescein (sc-65984 FITC), Alexa Fluor® 488 (sc-65984 AF488), Alexa Fluor® 546 (sc-65984 AF546), Alexa Fluor® 594 (sc-65984 AF594) or Alexa Fluor® 647 (sc-65984 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65984 AF680) or Alexa Fluor® 790 (sc-65984 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

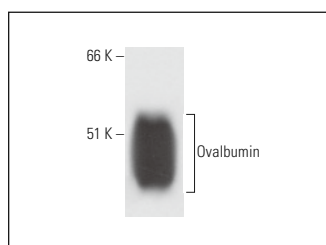
Ovalbumin (3G2E1D9) is recommended for detection of Ovalbumin of avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of Ovalbumin: 45 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Ovalbumin (3G2E1D9): sc-65984. Western blot analysis of purified chicken Ovalbumin.

SELECT PRODUCT CITATIONS

- Pasek, M., et al. 2012. The N-acetyl-binding pocket of N-acetylglucosaminyltransferases also accommodates a sugar analog with a chemical handle at C2. *Glycobiology* 22: 379-388.
- Zhang, Y., et al. 2015. Mutual enhancement of IL-2 and IL-7 on DNA vaccine immunogenicity mainly involves regulations on their receptor expression and receptor-expressing lymphocyte generation. *Vaccine* 33: 3480-3487.
- Tufail, S., et al. 2015. Amyloid form of ovalbumin evokes native antigen-specific immune response in the host: prospective immuno-prophylactic potential. *J. Biol. Chem.* 290: 4131-4148.
- Theivanthiran, B., et al. 2020. A tumor-intrinsic PD-L1-NLRP3 inflammasome signaling pathway drives resistance to anti-PD-1 immunotherapy. *J. Clin. Invest.* 130: 2570-2586.
- Jiang, Y., et al. 2020. Engineered cell-membrane-coated nanoparticles directly present tumor antigens to promote anticancer immunity. *Adv. Mater.* 32: e2001808.
- Inoue, S., et al. 2023. Induction of potent antitumor immunity by intradermal DNA injection using a novel needle-free pyro-drive jet injector. *Cancer Sci.* 114: 34-47.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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