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ProductInformation

Albumin
from chicken egg white

Product Number **A 5378**
Storage Temperature 2-8 °C

Product Description

CAS Number: 9006-59-1
Extinction coefficient: $E^{1\%}$ = 6.9 to 7.6 (280 nm)[1]
pI: 4.54 (4.43-4.66)[2]; 4.9[3]
Synonym: Ovalbumin

This product is not less than 90% pure by agarose gel electrophoresis.

Chicken egg albumin is the major protein constituent of egg whites. Chicken egg albumin is a phosphorylated-glycoprotein. From the amino acid sequence, the peptide portion of the molecule consists of 385 residues and has a molecular weight of 42.7 kDa.[4] This sequence completely agrees with the reported m-RNA (messenger RNA) sequence.[5] The carbohydrate and phosphate portions account for an additional 1428 and 160 grams per mole respectively, giving a total molecular weight of 44.3 kDa.[6]

Differential scanning calorimetry indicates the chicken egg albumin denatures at 84 °C.[7]

Ovalbumin can be used as a carrier protein to conjugate to synthetic peptides for use as an immunogen. It has the following amino acids: 20 Lys, 10 Tyr, 6 Cys, 14 Asp, and 33 Glu which make it suitable for conjugation.[8]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in H2O (50 mg/ml), yielding a clear to slightly hazy solution.

References

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4. Nisbet, A.D., et al., The complete amino-acid sequence of hen ovalbumin. Eur. J. Biochem., **115**, 335-345 (1981).
5. McReynolds, L., et al., Sequence of chicken ovalbumin mRNA. Nature, **273**, 723-728 (1978).
6. Tai, T., et al., Structures of the carbohydrate moiety of ovalbumin glycopeptide III and the difference in specificity of endo-beta-N-acetylglucosaminidases CII and H. J. Biol. Chem., **252**, 6687-6694 (1977).
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8. Antibodies: A Lab Manual, Harlow, E. and Lane, D., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 1988), p.77.

CMH/FEB/RXR 11/02